

APPENDIX

A1

Response to draft EIS Submissions

BORDER TO GOWRIE REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
1	1.0001	Private	Project alignment		The submitter asks why does the inland rail need to deviate from any existing corridor once it links into the QLD network east of Goondwind? If it has linked into the QLD network why does it not follow the existing corridor to Warwick and then cut across to Bromelton. This would at least 60 kms shorter and the majority of the line on existing corridor. The submitter asks why the rail line does not follow the Warwick line to Toowoomba if Toowoomba needs to be linked in. The submitter thinks that there is a political agenda behind this decision-making.	A route predominately on existing state owed land should be seriously considered without the political overlay.	In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one to Brisbane via Toowoomba and the other via Warwick and Rathdowney (see Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it also became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development. In 2015, the Inland Rail Implementation Group (IRIG) endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route. In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie. <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick. The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Australian Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (see Chapter 2: Project Rationale, Section 2.9.3). Following completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the Base Case via Wellcamp-Charlton alignment was to be progressed through phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced in Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the Project.	Chapter 2: Project Rationale Section 2.8.2 Section 2.9.3
001a	1.0002	Private	Flooding		Inadequate hydrology assessment for smaller creeks (i.e. Westbrook and Gowrie). The rail line cannot cross these creeks due to flooding impacts.	Change route to run adjacent to Gowrie Creek. Route should use West Moreton Line joining from. Route should join Cecil Plains line at Cecil Plains or join the West Morton line at Dalby. The route options would stop flooding impacts. The line cannot cross these creeks at right angles due to flooding impacts.	The chosen rail alignment does not cross Gowrie Creek, but instead it runs adjacent to Gowrie Creek. Where the rail alignment crosses Westbrook Creek and Dry Creek, sufficient bridge openings and culverts have been allowed for flood water to pass underneath and through the rail alignment. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The revised draft EIS has assessed the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, that are detailed in Section 2.8.2 of Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment	Chapter 2: Project Rationale Section 2.8.2 Section 2.9.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001a	1.0003	Private	Flooding	Cumulative impacts	ARTC have not included approved development applications (DA) and there is no cumulative impact assessment of these DAs, in relation to flooding (further detail in submission 1b).	Change route to run adjacent to Gowrie Creek. Route should use West Moreton Line joining from. Route should join Cecil Plains line at Cecil Plains or join the West Morton line at Dalby. The route options would stop flooding impacts. The line cannot cross these creeks at right angles due to flooding impacts.	Development applications are considered by the relevant planning authority, in the case of the cannabis farm/motorsport testing facility/entertainment precinct developments. Toowoomba Regional Council (TRC) is the relevant determining authority. As part of any development application located in a flood-affected area, and in accordance with TRC's Flood Hazard Overlay Code, developers are required to carry out a flood risk assessment for the new development to demonstrate that no adverse flood impacts will be caused elsewhere as a result of the development or that impacts would be suitably mitigated. ARTC does not have control over the timing of new developments as determined by TRC, and it is therefore considered unreasonable for ARTC to include proposed developments in their flood modelling to support a reference design and revised draft EIS process. As part of the detailed design of Inland Rail, significant new developments, with development approval, that are likely to affect the local hydrology and floodplain behaviour, and that is likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0004	Private	Flooding	Flood immunity	The extent of flood issues at Westbrook Creek have not been adequately captured. ARTC has used not validated data in flood modelling. Selected flood mapping/data underestimates water flow and velocity in order to understate the impacts of Inland Rail. The selected flood mapping/data has been selected to ensure the EIS is approved. This approach is unacceptable and will cause greater environmental and safety issues once the Project is built.	Nil	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. The flood mapping is based on a new model specifically developed for the Inland Rail Project reference design and EIS. Flood modelling has been conducted for a range of design events or AEPs (Annual Exceedance Probabilities) and tested for potential blockage, climate change and extreme event scenarios. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Westbrook Creek and Dry Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 6.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Flood mapping has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the Digital Platform for each of the Flood Impact Objectives including (but not limited to): <ul style="list-style-type: none"> Change in peak water levels Change in peak velocity Change in time of inundation Change in hazard Change in velocity (with FIO cut-off's applied) Change in hazard (with FIO cut-off's applied) Change in time of inundation (with FIO cut-off's applied). The web-based Digital Platform will be publicly available at the same time as the revised draft EIS is available for public consultation and will remain available post-consultation of the revised draft EIS. The Digital Platform includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances aligned with the mapping requirements, for all events as indicated in the Coordinator-General's letter dated 30-September-2022. The PDF mapping in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances aligned with the mapping requirements, for the 1% and 20% AEP events. The PDF mapping includes the sensitivity runs and calibration events.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 6.6 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
001b	1.0005	Private	Flooding	Modelling	The Toowoomba Regional Council (TRC) flood mapping is used for Wellcamp Airport/Westbrook Creek contradicts the DNRME flood modelling. The extent of the TRC flood mapping is only in dry and spring creeks (according to a TRC Planning Officer), with no data collected for the Inland Rail proposal area. TRC has marked the proposal area as overflow and with no provided flood volumes or flow data. The DNRME flood mapping shows substantial deep-water flows in the proposal area, prior to building of the airport. The TRC model was chosen to have the EIS approved.	Nil	The Westbrook Creek and Dry Creek flood modelling is not based on the Toowoomba Regional Council (TRC) mapping. New hydrologic and hydraulic models were developed by ARTC specifically for the Inland Rail Project reference design and the EIS, in accordance with industry guidelines and standard modelling practices. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Westbrook and Dry Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 6.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 6.6
001b	1.0006	Private	Flooding	Cumulative impacts	ARTC have not considered cumulative flooding impacts of proposed development sites in proximity of the rail line. These proposed developments include: <ul style="list-style-type: none"> Medical Cannabis Farm within Westbrook Creek flood zone (Figure 1) Motorsport Testing Facility at Wellcamp Airport (Figure 6) Wellcamp Entertainment Precinct. These developments will further exacerbate the flooding impacts caused by Inland Rail and should be considered in flood modelling.	The impacts of the proposed developments in the catchment need to be considered in terms of cumulative impact and incorporated in the flood modelling.	Development applications are considered by the relevant planning authority, in the case of the cannabis farm/motorsport testing facility/entertainment precinct developments. Toowoomba Regional Council (TRC) is the relevant determining authority. As part of any development application located in a flood-affected area, and in accordance with TRC's Flood Hazard Overlay Code, developers are required to carry out a flood risk assessment for the new development to demonstrate that no adverse flood impacts will be caused elsewhere as a result of the development or that impacts would be suitably mitigated. ARTC does not have control over the timing of new developments as determined by TRC, and it is therefore considered unreasonable for ARTC to include proposed developments in their flood modelling to support a reference design and revised draft EIS process. As part of the detailed design of Inland Rail, significant new developments, with development approval, that are likely to affect the local hydrology and floodplain behaviour, and that is likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0007	Private	Flooding	Modelling	ARTC have limited impact assessment only to properties dissected by the propose rail line, as per B2G Map 2 - Potentially Impact Land (Westbrook Creek) (Figure 4, Submission 1b). Concerns that Figure 4, which was presented to CCC Inner Downs, suggests that flooding ceases at the lot boundary of the properties affected by flooding.	Nil	The ARTC flood assessment has considered all lots within the hydraulic model domain, as shown on Figure 14-3a-e of the revised draft EIS, Chapter 14: Flooding and Geomorphology. The impacted lots shown in Figure 14-4a-d of the Submitter's submission were lots that had been identified to potentially experience flood impacts (not existing flooding) in a 1% AEP event, at a specific point in time during the reference design development, as presented in one of the community consultation update sessions. Areas that are currently at risk of flooding (i.e. pre-Inland Rail) and areas that are expected to be impacted by the Inland Rail Project from a flooding perspective are described and discussed in Sections 14.7.4 (Existing environment - Existing flooding regime) and Section 14.9.1 (Impact Assessment Summary - Flooding impact assessment) of the revised draft EIS, Chapter 14: Flooding and Geomorphology. It is noted that only flood impacts outside of the proposed rail corridor and exceeding the Flood Impact Objectives (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology) are reported in Section 14.9.1 of Chapter 14: Flooding and Geomorphology. However, all flood impacts for the range of modelled AEP events are presented in Appendix T1 and T2: Hydrology and Flooding Technical Report - Volumes 1 and 2 of the revised draft EIS, Chapter 14: Flooding and Geomorphology for completeness. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.7.4 Section 14.9.1 Figure 14-3a-e Figure 14-4a-d Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
001b	1.0008	Private	Flooding	Cumulative impacts	The Toowoomba Regional Council have planned for major developments at the township of Westbrook, which ARTC have not taken into consideration. The developments will increase run off and volume of flows in both Spring and Westbrook Creeks, which converge at Wellcamp Airport. These developments will increase the flooding impacts of Inland Rail. The developments, pattern of urban settlement, land use and key placemaking features of concerns are detailed in West Toowoomba Land Use Investigations Structure Plan (Figure 5, Submission 1b).	Nil	Development applications are considered by Toowoomba Regional Council (TRC) as the relevant planning authority. As part of any development application located in a flood-affected area, and in accordance with TRC's Flood Hazard Overlay Code, developers are required to carry out a flood risk assessment for the new development to demonstrate that no adverse flood impacts will be caused elsewhere as a result of the development or that impacts would be suitably mitigated. In addition, ARTC has no control over the timing of new developments as determined by TRC, and it is therefore considered unreasonable to expect ARTC to include proposed developments in their flood modelling to support a Reference Design and EIS process. As part of the detailed design of Inland Rail, significant new developments, with a development approval, that are likely to affect the local hydrology and floodplain behaviour, and that are likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
001b	1.0009	Private	Flooding	Modelling	No flood modelling has been collected since the completion of the levee bank around the Wellcamp airport. The levee bank will contribute to flooding by pushing flows west over the rail corridor (refer to Figure 1, page 1, submission 1b).	Nil	<p>The levee bank between Wellcamp Airport and Westbrook Creek is represented in the ARTC flood models, based on engineering information provided by Wellcamp Airport during the reference design, draft EIS, and revised draft EIS process.</p> <p>The Submitter has indicated an area of infill (highlighted in yellow) that occupies the majority of the Westbrook Creek channel, and floodplain, to the southwest of Wellcamp Airport. The Submitter claims that the highlighted area is water which now cannot flow where it used to due to the levee bank. There is also no evidence of such extensive infill developments evident on recent satellite images and aerial photography. And ARTC considers it unlikely that Wellcamp Airport would have been filled.</p> <p>In addition, ARTC has no control over the timing of new developments as determined by TRC, and it is therefore considered unreasonable to expect ARTC to include proposed developments in their flood modelling to support a reference design and EIS process.</p> <p>As part of the detailed design of Inland Rail, significant new developments, with a development approval, that are likely to affect the local hydrology and floodplain behaviour, and that are likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority.</p>	N/A
001b	1.0010	Private	Flooding	Modelling	ARTC claims: No changes to the flood extent outside of Project corridor Submitters response: The Project corridor is 2 km wide it would not be reasonable to think that there would be flooding outside this corridor.	Nil	<p>ARTC has assumed that the Submitter in this instance meant to say 'It would not be reasonable to think that there would not be flooding outside of the corridor'. Assuming this assumption is correct, ARTC provides the following response:</p> <p>The Project Study Corridor is 2 km wide, however, the Project Corridor refers to the operational rail corridor (approximately 40-80 m wide) ARTC is proposing to acquire.</p> <p>The statement 'No changes to the flood extent' means that the area of inundation currently experienced outside of the Project Corridor is expected to remain relatively unchanged, as per the modelling, for the range of AEP events modelled, and noting the nominated FIO thresholds.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0011	Private	Flooding	Increase in velocities	ARTC claim: No changes to velocities outside the Project corridor Submitters response: This does not seem to be defensible the velocity of water must increase downstream as the inland rail structure constrains the volumes between the 15 m high structure and the existing rail line on the other side of the creek.	Nil	<p>Potential changes in velocity have been assessed in accordance with the Flood Impact Objectives and is discussed in Section 14.9.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0012	Private	Flooding	Increase in flows	ARTC claim: No changes to flow direction Submitter response: The water flow must change as there is a barrier across where it naturally flows and the creek. The flow direction used are already incorrect as they have not accounted for the development at the airport, nor the development that have been approved adjacent to the rail line.	Nil	<p>Potential changes in velocity have been assessed in accordance with the Flood Impact Objectives and is discussed in Section 14.9.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0013	Private	Flooding	Modelling	ARTC claims: Afflux contained mostly in Project corridor Submitted response: This is inconsistent with the statements about the flood extent made above. How can the water flow be mostly contained in the Project corridor, when ARTC have already stated that the flood extent is contained?	Nil	<p>The existing and design case water flow is not contained in the Project Corridor, and this is not something ARTC has stated anywhere (note: the Project Corridor is typically approximately 40-80 m wide, whereas the Study Corridor is 2 km wide). The existing water flow and flood extent (i.e. pre-Inland Rail) are discussed and visually presented in Section 14.7 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>Afflux and changes in flood extent are measures used to assess potential flood impacts as a result of the Inland Rail Project. ARTC has not claimed that the water flow is mostly contained in the Project Corridor, nor has ARTC claimed that the flood extent is contained in the Project Corridor. The flood impacts associated with the Inland Rail Project are discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Chapter 14: Flooding and Geomorphology Section 14.6 Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0014	Private	Flooding - Westbrook and Dry Creek	Directly impacted landowner	ARTC claim: Afflux affects 11 lots owned by 5 landowners Submitted response: This will affect many lots down and upstream as well and these have been deliberately excluded from the ARTC study.	Nil	<p>The properties that are expected to experience flood impacts outside the Flood Impact Objectives, as a result of Inland Rail, are reported and discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology. The impacted lots, referred to in the Submitter's submission, were lots that had been identified to potentially experience afflux in a 1% AEP event at a specific point in time during the Reference Design development, as presented in one of the community consultation update sessions (i.e. prior to the draft EIS release). No properties were deliberately excluded from ARTC's assessment as claimed by the Submitter. The model domain has been set in line with industry guidelines and standard practice.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>It should be noted that the Flood Impact Objectives have been amended in consultation with the Expert Flood Panel. The updated Flood Impact Objectives are presented in Table 14-4 of Chapter 14: Flooding and Geomorphology. The flood impact assessment results presented in the revised draft EIS will therefore be different in some areas, compared to what was presented in the draft EIS.</p>	Chapter 14: Flooding and Geomorphology Section 14.6 Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001b	1.0015	Private	Flooding - Westbrook and Dry Creek	Increase in peak water levels	ARTC Claim: Max. afflux of 300 mm outside of the project corridor in discrete pockets, but generally between 50 and 150 mm Submitter Response: This is a considerable increase in water level. ARTC cannot limit their flood modelling to just where the rail line goes the upstream and downstream effects need to be included.	Nil	<p>The flood modelling conducted by ARTC considers upstream and downstream impacts as well as impacts around the proposed rail alignment. Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (refer to Table 14-4 of Chapter 14: Hydrology and Geomorphology of the revised draft EIS). During the Reference Design development process, ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Sections 5 through to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.8.1 of Chapter 14: Flooding and Geomorphology.</p> <p>Additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping included within the revised draft EIS provides more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. As per ARTC's Mitigation Framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Chapter 14: Flooding and Geomorphology Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 5 - 17
001b	1.0016	Private	Flooding - Westbrook and Dry Creek	Flood immunity	ARTC claim: No buildings affected by any changes in flood behaviour. Submitter response: ARTC need to undertake downstream modelling to make this statement. Increasing a flood event by 30cm could have dire consequences for the houses and buildings downstream not to mention the threat to people's lives.	Nil	<p>The flood modelling domain (or extent) has been determined in line with industry guidelines and standard practices. Based on the revised draft EIS modelling around Westbrook and Dry Creeks, no buildings are affected by any changes in flood behaviour for events up to and including the 1% AEP event, as required by the ToR.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001c	1.0017	Private	Flooding - Gowrie Creek	Modelling	There is no correlation between the flood modelling used by ARTC (Figure A3-b in EIS used as an example (B2G - Gowrie Creek 10% AEP Peak Water Level - Existing Case) or Figure 1, Submission 1c) and that developed by Toowoomba Regional Council, depicted by the Toowoomba Region - Flood Risk Information Portal (Figure 3, Submission 1c)	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakley on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	<p>The Submitter has presented an extract from the ARTC 10% AEP event, in comparison to Toowoomba Regional Council's flood risk category flood mapping. These datasets are not directly comparable as they represent floods of different magnitudes. In addition, the Toowoomba Regional Council flood risk information portal provides indicative flood mapping for planning and development control purposes and tends to have a regional focus. If a development application site falls within a TRC flood risk zone Council typically requires the developer to undertake a detailed, site-specific Flood Risk Assessment in support of the development application.</p> <p>ARTC have developed new site-specific and Project-specific flood models for Gowrie Creek, based on industry guidelines and standard modelling practices.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001c	1.0018	Private	Flooding - Gowrie Creek	Directly impacted landowner	ARTC claim: Afflux affects nine lots owned by six landowners Submitter response: This will affect many lots down and upstream as well and these have been deliberately excluded from the ARTC study.	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakley on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	<p>The properties that are expected to experience flood impacts outside the Flood Impact Objectives, as a result of Inland Rail, are reported and discussed in Section 14.8.1 of the draft EIS, Chapter 14: Flooding and Geomorphology. The impacted lots, referred to in the Submitter's submission, were lots that had been identified to potentially experience afflux in a 1% AEP event at a specific point in time during the Reference Design development, as presented in one of the community consultation update sessions (i.e. prior to the draft EIS release). No properties were deliberately excluded from ARTC's assessment as claimed by the Submitter. The model domain has been set in line with industry guidelines and standard practice.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>It should be noted that the Flood Impact Objectives have been amended in consultation with the Expert Flood Panel. The updated Flood Impact Objectives are presented in Table 14-4 of Chapter 14: Flooding and Geomorphology. The flood impact assessment results presented in the revised draft EIS will therefore be different in some areas, compared to what was presented in the draft EIS.</p>	Chapter 14: Flooding and Geomorphology Section 14.9.1 Table 14-4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
001c	1.0019	Private	Flooding - Gowrie Creek	Increase in peak water levels	ARTC claim: 350 mm increase on one private access (further design and mitigation required) Submitted response: ARTC have claimed a maximum afflux of 300 mm and now they state it is 350 mm. This provides evidence that the data and statements made by ARTC are not valid and should not be relied upon as a basis on which to build a rail line.	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakay on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	The context for this submitter issue raised was a presentation to the Inner Darling Downs Community Consultative Committee (CCC), at a specific point in time during the Reference Design development and prior to finalisation of the revised Reference Design and revised draft EIS. Some of the impacts would have changed during the revised Reference design development process, given the iterative nature of design development, and considering community and stakeholder feedback that's been considered as part of the design development. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. It should be noted that the Flood Impact Objectives have been amended in consultation with the Expert Flood Panel. The updated Flood Impact Objectives are presented in Table 14-4 of Chapter 14: Flooding and Geomorphology. The flood impact assessment results presented in the revised draft EIS will therefore be different in some areas, compared to what was presented in the draft EIS.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001c	1.0020	Private	Flooding - Gowrie Creek	Modelling	B2G Project fly-through video (Figures 4 -7 Submission 1c) shows the rail line is 15 meters high and has limited culverts, none of which are shown in the schematic/digital modelling.	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakay on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	Individual local culverts have not been shown on the ARTC Project animation/fly-through video; however, major bridges have been shown. All proposed bridges and culverts are shown on the Floodplain and Drainage Structure figures in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology, Figure 14.18a-e shows the proposed culverts and bridges within the Gowrie Creek floodplain, which has been positioned and sized based on flood modelling investigations and community/stakeholder feedback. The proposed floodplain culverts within the Gowrie Creek floodplain are described in Table 14-51 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). As described in Chapter 2: Project Rationale, Section 2.8-2.10 of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none"> Environmental impacts - 12.5% (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts - 12.5% (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement - 12.5% Technical viability - 17% Safety - 16.5% Constructability -12.5% Operations - 16.5%. 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 14: Flooding and Geomorphology Section 14.8.1 Figure 14.18a-e Table 14-51
001c	1.0021	Private	Flooding - Gowrie Creek	Modelling	The current flood model is concentrated to land parcels only which are dissected by Inland Rail corridor. The scope of the flood study should be expanded to include the Gowrie Creek catchment. Flooding goes beyond properties boundaries. Flood impacts at Gowrie Creek has no credibility and the modelling should be subject to intense scrutiny of the expert panel.	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakay on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	The flood modelling conducted by ARTC considers upstream and downstream impacts as well as impacts around the proposed rail alignment. All land parcels within the Gowrie Creek hydraulic model domain (refer Sub-Appendix A-D of Appendix T2: Hydrology and Flooding Technical Report - Volume 2 of the revised draft EIS) have been considered as part of the flood impact assessment. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and the revised Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2 Appendix A-D
001c	1.0022	Private	Project alignment	Flood immunity	ARTC should examine alternative route options including the original and existing Queensland Rail line on the northern side of Gowrie Creek. The flood modelling for the existing alignment is accurate given the line has been operating since 1865. Flood panel should consider this route as it's brownfield and already has flood mitigation strategies. Instead of connecting the Inland Rail line to the QR Line at Gowrie, it should instead join at Oakay to avoid flooding disaster (Figure 8, Submission 1c).	The route will need to change so the rail runs parallel to Gowrie Creek. This would mean it needs to come in from Oakay on the West Moreton Line. The line cannot cross these creeks at right angles as planned due to flooding impacts. The line would need to join the existing Cecil Plains line at Cecil Plains or join the West Moreton line at Dalby - both these options stop the flooding impacts.	ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland RAILS program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none"> Environmental impacts - 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impact - 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement - 12.5 per cent Technical viability -17 per cent Safety -16.5 per cent Constructability - 12.5 per cent Operations - 16.5 per cent. In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development. The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route. In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie. <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick. The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017. Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area. Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Chapter 2: Project Rationale, Section 2.9.3). Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details: inlandrail.gov.au/understanding-inland-rail/publications-and-reports . The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to the Project and Appendix 4 (pp. 109-116) provide a detailed history of routes via Warwick that have been considered over time.	Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
001c	1.0023	Private	Flooding - Gowrie Creek	Modelling	ARTC claims no changes to the flood extent outside of project corridor. However, the project corridor is 2 km wide it would not be reasonable to think that there would be flooding outside this corridor.	Scope of this flood study to be extended to the Gowrie Creek Catchment. It is not sensible for ARTC to conduct a flood model survey of just the lots of land that are dissected by the Inland Rail structure. ARTC have not displayed any credibility by providing this evidence of the flood effects at Gowrie Creek, and as such the modelling should be subjected to the intense scrutiny of this expert panel. The Council should ask ARTC to examine alternative options including the original Inland Rail route which is the existing Queensland Rail line on the northern side of Gowrie Creek. The flood mapping for this is accurate as this rail line has been in existence since 1965 and the line is still in use so the flood interface with the line is well known. The Queensland Rail line further west departs from this corridor, and despite it being the best option as far as mitigating flood effects would currently be excluded from consideration due to the constraint of the staying within the current EIS corridor.	ARTC has assumed that the Submitter in this instance meant to say 'It would not be reasonable to think that there would not be flooding outside of the corridor'. Assuming this assumption is correct, ARTC provides the following response: The Project Study Corridor is 2 km wide, however, the Project Corridor refers to the operational rail corridor (approximately 40-80 m wide) ARTC is proposing to acquire. The statement 'No changes to the flood extent' means that the area of inundation currently experienced outside of the Project Corridor is expected to remain unchanged, as per the modelling, for the range of AEP events modelled. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
001c	1.0024	Private	Flooding - Gowrie Creek	Modelling	ARTC claims no changes to velocities outside the project corridor. However, this does not seem to be defensible the velocity of water must increase down stream as the inland rail structure constrains the volumes between the 15 m high structure and the exiting rail line on the other side of the creek.	Scope of this flood study to be extended to the Gowrie Creek Catchment. It is not sensible for ARTC to conduct a flood model survey of just the lots of land that are dissected by the Inland Rail structure. ARTC have not displayed any credibility by providing this evidence of the flood effects at Gowrie Creek, and as such the modelling should be subjected to the intense scrutiny of this expert panel. The Council should ask ARTC to examine alternative options including the original Inland Rail route which is the existing Queensland Rail line on the northern side of Gowrie Creek. The flood mapping for this is accurate as this rail line has been in existence since 1865 and the line is still in use so the flood interface with the line is well known. The Queensland Rail line further west departs from this corridor, and despite it being the best option as far as mitigating flood effects would currently be excluded from consideration due to the constraint of the staying within the current EIS corridor.	Potential changes in velocity have been assessed in accordance with the Flood Impact Objectives and is discussed in Section 14.9.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001c	1.0025	Private	Flooding - Gowrie Creek	Modelling	ARTC claims no changes to flow direction. However, the water flow must change as there is a barrier across where it naturally flows and the creek. The water will follow the barrier downhill and cause erosion and flooding on the upside of this structure.	Scope of this flood study to be extended to the Gowrie Creek Catchment. It is not sensible for ARTC to conduct a flood model survey of just the lots of land that are dissected by the Inland Rail structure. ARTC have not displayed any credibility by providing this evidence of the flood effects at Gowrie Creek, and as such the modelling should be subjected to the intense scrutiny of this expert panel. The Council should ask ARTC to examine alternative options including the original Inland Rail route which is the existing Queensland Rail line on the northern side of Gowrie Creek. The flood mapping for this is accurate as this rail line has been in existence since 1865 and the line is still in use so the flood interface with the line is well known. The Queensland Rail line further west departs from this corridor, and despite it being the best option as far as mitigating flood effects would currently be excluded from consideration due to the constraint of the staying within the current EIS corridor.	Potential changes in velocity have been assessed in accordance with the Flood Impact Objectives and is discussed in Section 14.9.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001c	1.0026	Private	Flooding - Gowrie Creek	Modelling	ARTC claims afflux contained mostly in Project corridor. However, this is inconsistent with the statements about the flood extent made above. How can the water flow be mostly contained in the Project corridor, when ARTC have already stated that the flood extent is contained?	Scope of this flood study to be extended to the Gowrie Creek Catchment. It is not sensible for ARTC to conduct a flood model survey of just the lots of land that are dissected by the Inland Rail structure. ARTC have not displayed any credibility by providing this evidence of the flood effects at Gowrie Creek, and as such the modelling should be subjected to the intense scrutiny of this expert panel. The Council should ask ARTC to examine alternative options including the original Inland Rail route which is the existing Queensland Rail line on the northern side of Gowrie Creek. The flood mapping for this is accurate as this rail line has been in existence since 1865 and the line is still in use so the flood interface with the line is well known. The Queensland Rail line further west departs from this corridor, and despite it being the best option as far as mitigating flood effects would currently be excluded from consideration due to the constraint of the staying within the current EIS corridor.	The existing and design case water flow is not contained in the Project Corridor, and this is not something ARTC has stated anywhere (note: the Project Corridor is typically approx. 40-80 m wide, whereas the Study Corridor is 2 km wide). The existing water flow and flood extent (i.e. pre-Inland Rail) are discussed and visually presented in Section 14.7 of the revised draft EIS, Chapter 14: Flooding and Geomorphology. Afflux and changes in flood extent are measures used to assess flood impacts as a result of the Inland Rail Project. ARTC has not claimed that the Project Corridor, nor has ARTC claimed that the flood extent is contained in the Project Corridor. The flood impacts associated with the Inland Rail Project are discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.7 Section 14.8.1 Appendix T1: Flooding & Hydrology Technical Report - Volume 1 Section 2
001c	1.0027	Private	Flooding - Gowrie Creek	Modelling	ARTC claims max. Afflux of 300 mm outside of the project corridor in discrete pockets, but generally between 50 and 150 mm. However, this is a considerable increase in water level. ARTC can not limit their flood modelling to just where the rail line goes the upstream and downstream effects need to be included.	Scope of this flood study to be extended to the Gowrie Creek Catchment. It is not sensible for ARTC to conduct a flood model survey of just the lots of land that are dissected by the Inland Rail structure. ARTC have not displayed any credibility by providing this evidence of the flood effects at Gowrie Creek, and as such the modelling should be subjected to the intense scrutiny of this expert panel. The Council should ask ARTC to examine alternative options including the original Inland Rail route which is the existing Queensland Rail line on the northern side of Gowrie Creek. The flood mapping for this is accurate as this rail line has been in existence since 1865 and the line is still in use so the flood interface with the line is well known. The Queensland Rail line further west departs from this corridor, and despite it being the best option as far as mitigating flood effects would currently be excluded from consideration due to the constraint of the staying within the current EIS corridor.	The flood modelling conducted by ARTC considers upstream and downstream impacts as well as impacts around the proposed rail alignment. Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (refer to Table 14-4 of Chapter 14: Hydrology and Geomorphology of the revised draft EIS). During the Reference Design development process, ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5 through to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. Additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping included within the revised draft EIS provides more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results and further discussion of results. As per ARTC's Mitigation Framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 5 - 17
001d	1.0028	Private	Approvals/ conditions/ recommendations		Questioned how the EIS can be approved with the Senate Inquiry into ARTC management of the Project still outstanding/on-going.	Put the project on hold until this is addressed.	On 17 September 2019, the Senate announced an inquiry to consider the management of the Inland Rail program by the Australian Rail Track Corporation and the Australian Government. The Senate Inquiry was undertaken by the Rural and Regional Affairs and Transport References Committee and their findings released on 11 August 2021. The Australian Government supported 15 of the 26 recommendations made in the Committee's report, ensuring their continued commitment to the project. Since that time, Inland Rail has been subject to a separate Independent Review with findings released on 6 April 2023. The Independent Review recommended a revised delivery program and further assessment of the scope and cost of individual segments of Inland Rail. At the time of preparing the EIS document, the outcomes of the recommendations were not available, and therefore have not been quantified or considered in the social, economic and environmental assessments. The EIS is based on assumptions current at the time of assessment (2022). From a preliminary consideration of the findings of the Independent Review, it is unlikely the outcomes and conclusions presented in the EIS will change.	N/A
001d	1.0029	Private	Approvals/ conditions/ recommendations		Questioned how the EIS can be approved with the outcomes of the expert flood panel outstanding. Submitter understands that ARTC are relying on flood report to inform the EIS. Questioned how the EIS can be released for public exhibition without all the facts.	Put the project on hold until this is addressed.	As discussed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, the hydrology assessment outcomes conducted for the Project were reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The flood impact objectives were incorporated into the revised draft EIS. ARTC has incorporated Expert Flood Panel recommendations by addressing critical matters to further strengthen the flood models for detailed design. Following completion of relevant environmental aspects impact assessments for the Project, the Project's EIS will be submitted to the Office of the Coordinator-General for review and approval (Chapter 3: Legislation and Approvals Process, Section 3.2).	Chapter 3: Legislation and Approvals Process Section 3.2 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
001e	1.0030	Private	Stakeholder engagement		The Pittsworth and surrounding districts local paper, the Pittsworth Sentinel, closed prior to Christmas 2020. As a result, the residents of these areas who relied on the local paper circulation weren't adequately informed of the EIS public exhibition period. The community had requested at the CCC Inner Downs Meeting that ARTC undertake a letter drop in these areas. However this was rejected by ARTC on the basis that the communication strategy was approved by the OCG. It is assumed that the communication strategy was approved by the OCG while the Pittsworth Sentinel was still in operation.	Amend ARTC communication strategy. Undertake a letter box drop for communities in post codes 4356,4401,4346 and 4363, which includes a flyer on the EIS public exhibition and a submission form for residents to respond.	The public notification of the draft EIS exhibition was carried out in accordance with the requirements of the SDPWO Act and as per the directive from the Coordinator-General. ARTC ran public information sessions to provide stakeholders the opportunity to ask questions about the draft EIS and submission process. Newspaper advertising of these information sessions was only one of the communication methods used to notify communities of the public display process. ARTC carried out a program of engagement between 23 January 2021 and 4 May 2021 to support the public notification period, including: <ul style="list-style-type: none"> ▶ Sending 238 registered post letters to landowners within the EIS footprint and making follow up phone calls ▶ Providing 238 landowners with a hardcopy submission form and a fact sheet, with a 'Have-your-say' form and offer to provide the draft EIS on a USB ▶ Communicating the public exhibition process through the ARTC website and social media ▶ Offering one-on-one meetings to all interested stakeholders and directly impacted landowners ▶ Providing hard copies of the full EIS to nine libraries to have available for interested stakeholders to read ▶ Providing hard copies of the full EIS to both the Toowoomba and Goondiwindi Inland Rail offices to have available for interested stakeholders to read ▶ Providing literacy support and translation services for culturally and linguistically diverse stakeholders ▶ Hosting presentations to the SDDCCC (January 2021) and the IDDCCC (February 2021) on the draft EIS and how to make a submission ▶ Briefing state agencies and local councils and their representatives on the EIS process ▶ Ran nine community drop-in information sessions with a range of subject matter experts across the alignment at Toowoomba, Gowrie, Southbrook, Pittsworth, Brookstead, Millmerran, Inglewood, Yelarbon and Goondiwindi. It should be noted that there were several public notice advertisements that ran in the Toowoomba Chronicle, which covers the Pittsworth area. The Pittsworth Sentinel reopened during the EIS submission period, and an advertisement was placed informing the community of the extension to the submission date. ARTC will undertake engagement activities to support the public exhibition of the revised draft EIS, including public information sessions. These sessions will be advertised through all communication methods, including newspaper advertisements, social media, email and through the CCCs. ARTC will continue to use a mix of digital and traditional communication channels to reach a broad audience, and work with the Coordinator-General to widely promote the public exhibition process. Further details are outlined in Chapter 6: Stakeholder Engagement, Section 6.7 Future Consultation.	Chapter 6: Stakeholder Engagement Section 6.7
3	3.0002	Private	Flora and Fauna	Fauna passage	Fauna crossing structure/path to allow Koalas to cross safely.	Concern for the safety of the Koalas which are known to cross several times a year from where the rail line is proposed to the submitters property.	Since the draft EIS was released for public submission ARTC has undertaken additional ecology surveys in accordance with industry standards. The basis on this survey was used to avoid and reduce Project impacts to ecological values through design refinement as shown in Appendix B3: Changes to Reference Design since Draft EIS. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible. Mitigation measures have been developed based on the outcomes of field verified ecological survey. A fauna connectivity strategy (see Appendix P: Fauna Connectivity Strategy) has been prepared for the Project which identifies opportunities for proposed fauna crossing opportunities for species such as the Koala. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the Construction Works and Operations stages.	Appendix B3: Changes to Reference Design since Draft EIS Appendix O: Matters of National Environmental Significance Technical Report Section 8 Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
4	4.0001	Private	Project alignment		Questioned whether the Defence Force had been consulted on the most suitable location for Inland Rail connection so that main habitation areas are not comprised and main transport connections are in close proximity.	Nil	<p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment as the preferred concept alignment for the Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified.</p> <p>The base case via Wellcamp Charlton alignment formed the centreline of a two-kilometre-wide study area to be progressed through ARTCs phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale Section 2.8 of the draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement: 12.5 per cent Technical viability: 17 per cent Safety: 16.5 per cent Constructability: 12.5 per cent Operations: 16.5 per cent. 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
4	4.0002	Private	Project alignment		<p>Submitter was hoping and would have welcomed the Inland Rail hub coming to the township of Miles. The rail connection between Wandoan and Theodore would mean that coal did not have to be transported through Toowoomba. Use of existing rail locations/lines:</p> <ul style="list-style-type: none"> Limit wildlife impact Only require enhancement/upgrading Limit impacts to farming land Limit flood impacts are the existing line is known to not be majority flood affected. 	Nil	<p>The vast majority of freight carried on Inland Rail (on a net tonne kilometre basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement: 12.5 per cent Technical viability: 17 per cent Safety: 16.5 per cent Constructability: 12.5 per cent Operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:- 2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
5	5.0001	Private	Flora and Fauna		The ARTC should be conditioned to also overlay their mapping with Local Government Environmental receptors. They should overlay their map with any Landcare regional mapping and local governmental maps that are available to ensure that all sensitive items in the area are covered.	EIS Section 10.4.3.1 - My neighbours and myself live in an area that is classified as "essential habitat " on one map for the area. This fact has been ignored by the ARTC.	<p>Ecological impact assessment of the Project footprint uses available state, regional and local mapping resources and previous ecological investigations to identify potential ecological values within the impact assessment area. A summary of data sources accessed for the assessment is provided in Chapter 11: Flora and Fauna.</p> <p>Essential habitat has been examined on a species-by-species basis and was included in the habitat mapping for the Project to ensure all habitat areas were covered. Significant residual impacts to essential habitat has also been assessed as a Matter of State Environmental Significance.</p>	Chapter 11: Flora and Fauna Section 11.4
5	5.0002	Private	Flora and Fauna	Koala	Concern about koala impacts and offsets.	Koala offsets should be mapped and explained in detail. Not one Koala tree should be destroyed during construction of the line. It is unacceptable to just pay money for the offsets areas. Trees should be planted and nurtured so they can sustain Koalas and they should be available for the Koala population before the line is bulldozed, not years after. The ARTC should be conditioned to have pre-prepared areas for the koalas adjacent to the track should any trees have to be cleared.	<p>Appendix O: Matters of National Environmental Significance Technical Report outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 Matters of National Environmental Significance. In instances where uncertainty existed, a worst-case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offsets for this species will be required in order to comply with Commonwealth legislative requirements.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed following direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Following the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of "habitat critical to the survival" of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan (DKMP).</p> <p>Noise impacts to listed threatened species that are associated with both construction and railway operations have been assessed in the revised draft EIS (see Chapter 11: Flora and Fauna). Specific management and mitigation measures for Koala during both construction and railway operations have been proposed in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>The preferred location for the proposed rail corridor was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>As described in Section 2.8-2.10 of Chapter 2: Project Rationale, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 24: Draft Outline environmental Management Plan Section 24.9 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Technical Report
5	5.0003	Private	Flora and Fauna	Baseline/background sampling	11.25 of Table 10.1 - The ARTC have not included all the animals that frequent this area of which a few will be rare, including tortoises, which have been observed at this property.	Include animals missed, including tortoises.	<p>Detailed desktop assessments and field surveys were conducted to identify threatened species and habitats present within the proposed alignment and further details can be found in Chapter 11: Flora and Fauna, Section 11.3. The revised draft EIS has included species that have been identified through a review of available literature and that are likely affected by the impact assessment area, in addition to the listed threatened species which includes the Bell's turtle (Wollumbinia bell) (see TOR 11.29 of Appendix A2: Terms of Reference Cross-Reference Table). All species may not have been captured at this stage, but these areas will continue to be investigated as the Project progresses.</p>	Appendix A2: Terms of Reference Cross Reference Table TOR 11.29
5	5.0004	Private	Flora and Fauna	Mitigation measures	11.11 of Table 10.1 - The ARTC should be conditioned to provide detail of all fencing that they are using and this should be available for public scrutiny and comment prior to approval. Section 10.1. Table 11.11 - the ARTC should be conditioned to investigate many more passage routes should be constructed and the plans should put out for public comment prior to approval of the EIS.	11.11 of Table 10.1 - It is noted there is 60 km zone where there is only one safe passage for animals this will wipe out huge areas adjacent to the track for any animal that needs to migrate across the area for different reasons this is unacceptable Also the fencing along the full length of the track and may become a danger to some of the animals should they get stuck between them.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be stand alone appendices for the revised draft EIS and were developed following direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and written submissions received on the draft EIS, as part of the EIS public notification process. Further details are in Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Appendix P: Fauna Connectivity Strategy, identifies the location of proposed fauna crossing opportunities for species such as Koala. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines, and DTMR's Fauna Sensitive Transport Infrastructure Delivery manual (2024).</p> <p>The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, a range of different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.</p>	Chapter 11: Flora and Fauna Section 11.6 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy Section 5 Section 7
5	5.0005	Private	Flooding - Condamine River	Modelling	Section 10.10.1 - The crossing of the Condamine flood plain is a danger to the locals of the area lives will be lost due to flooding. The flood levels from history show much higher water levels than the ARTC are working with.	Section 10.10.1 The plans for the crossing have been studied by an independent body and found to be inadequate. The ARTC should be conditioned to draw up a new set of plans using the correct water figures these plans should be put forward for public scrutiny prior to approval. Or choose another route.	<p>The EIS is focussed on the chosen alignment selected by the Australian Government.</p> <p>The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale Section 2.8. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
5	5.0006	Private	Flora and Fauna	Mitigation measures	Section 10.10.3 - There is no evidence to support the claim that the project has been aligned to minimize impacts social or threatened species. Note: Submission references 10.10.3, which does not exist in the EIS. Assumedly this may referencing Section 10.10.1 which discusses reference design mitigations.	10.10.3 - The ARTC should be conditioned to show how and where they have changed the route to lessen impacts. The ARTC have stated that the line must go straight from "A" to "B". If you draw a straight line from Brookstead to Toowoomba or Millmerran to Toowoomba, the line does not go near either Pitgworth or Southbrook but was chosen to be adjacent to the highway. At no other portion of the line was it necessary to be adjacent to the highway you can see this from the mapping of the track. This issue should be revisited and the track realigned to go straight. Note: Submission references 10.10.3, which does not exist in the EIS. Assumedly this may referencing Section 10.10.1 which discusses reference design mitigations.	The Project footprint has been subject to historical disturbance and clearing, with one third of the alignment length located within brownfield areas (e.g. areas already subject to previous development). The remaining greenfield portions of the Project area extend largely through areas subject to agricultural land uses. The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainage and rail maintenance access roads. Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report, provides strategies that have been used to minimise impacts through the design stage of the Project to avoid habitat of threatened species wherever possible. As the Project moves into the detailed design and construction stages, more focused and comprehensive ecological surveys will be undertaken. Along with informing the design and construction, these will include specific measures to avoid, mitigate, minimise impacts on Koala, along with ongoing monitoring activities (see Appendix L: Terrestrial and Aquatic Ecology Technical Report). Opportunities for the provision of fauna movement solutions have been identified in Appendix P: Fauna Connectivity Strategy. These include fencing strategies to guide species such as Koala to safe movement opportunities and will be refined through the detailed design process.	Chapter 11: Flora and Fauna Section 11.6 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix P: Fauna Connectivity Strategy Section 5 and 7
5	5.0007	Private	Flora and Fauna	Terrestrial flora	Submission notes that there is a suitable area to the rear that will not have to clear 100 m of trees.	Section 10.10.3. - Concern that the project will be built in the area that submitter lives which is classified as essential habitat that is dense in gum trees. Submission notes that this will involve cutting 100 m wide swathe of trees.	Clearing of vegetation will be restricted to the minimum required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainage and rail maintenance access roads. Habitat for threatened species (including the Condamine earless dragon) has been avoided wherever possible (see Appendix L: Terrestrial and Aquatic Ecology Technical Report). Where impacts to threatened species habitat cannot be avoided, mitigation and management measures will be implemented. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the construction works and operations stages. Impact mitigation will include pre-clearance surveys prior to disturbance. Management and mitigation measures to protect vulnerable and endangered species are proposed in Chapter 24: Draft Outline Environmental Management Plan. In instances where a significant residual impact occurs, as identified by the relevant EPBC Act and NC Act significant assessment criteria, biodiversity offsets will be secured (see Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC will provide biodiversity offsets in accordance with the relevant state or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Environmental Offset Delivery Strategy.	Chapter 11: Flora and Fauna Section 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 5 and 7 Appendix Q: Environmental Offset Delivery Strategy
5	5.0008	Private	Stakeholder engagement		Concern about proximity of the project to submitters house as well as 3 other family homes, rendering them unbearable to live in. Submission notes that they have informed the ARTC of this impact, however no changes in ARTC plans have been made. Submission notes ARTC have lost all the confidence of the public for good reason with their deceit they have shown and the total disregard and contempt for the families and lifestyles they are ruining hence the fact that Richard Wankmuller has stepped down before it becomes too obvious that he has been running a circus.	Submitter has informed the ARTC where the track would make less of an impact on both families and fauna but the ARTC said they can not travel out of the 2K zone despite 1 k of the zone being south of the highway and making it impossible to be used as the track is on the north side.	Chapter 2: Project Rationale Section 2.10.13 details the challenges associated with the Southbrook to Athol Section of Inland Rail including the topography and geotechnical conditions, major existing linear infrastructure (Gore Highway and Millmerran Branch Line) and multiple freehold properties of a non-uniform shape. The overarching design principle for this Section of the alignment was to run in parallel to the Gore Highway as much as possible to form a multi-modal transport corridor to minimise the extent of severance to freehold properties and impact to the environment. Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report outlines the engagement undertaken with landowners in the study area, including letters, phone calls, one-on-one meetings, as well as broad-scale community engagement activities such as community information sessions and CCC meetings. Where a request was made to review the alignment at Southbrook, a detailed assessment was completed by the Project's design team and determined that the alternative alignment was not a viable option. ARTC acknowledges the uncertainty that Project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Appendix X: Social Impact Assessment (SIA), Section 7 details the strategies that ARTC has implemented to support affected residents. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners through detailed design and construction to mitigate impacts, accommodate the continuation of current property management activities and access, where possible. Individual property treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required and if possible.	Chapter 2: Project Rationale Section 2.10.13 Chapter 6: Stakeholder Engagement Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Appendix X: Social Impact Assessment Section 7
5	5.0009	Private	Cultural Heritage	Non-Indigenous cultural heritage	Concerned that track will be built over a very sensitive area i.e. a Grave of one of the Pioneers of the area and taking past a Cobb and Co historic building. Claims ARTC have already been informed of these matters.	Submitter has informed the ARTC where the track would make less of an impact on both families and fauna but the ARTC said they can not travel out of the 2K zone despite 1 k of the zone being south of the highway and making it impossible to be used as the track is on the north side.	In October 2021, ARTC conducted initial investigations at the property identified by the submitter with the cultural heritage team and engaged with History Pittsworth, the local historical society, regarding appropriate management measures. Chapter 19: Cultural Heritage Section 19.4 and Table 19-15 have been updated with this information, and the significance of the grave and surrounding Green Hills Hotel site has been assessed in Table 19-17 in Section 19.5.2. Tables 19-21 and 19-22 make a series of recommendations to manage impacts to this place, including further archaeological assessment, relocation of the grave to the Pittsworth Cemetery, and heritage interpretation.	Chapter 19: Cultural Heritage Section 19.4 Section 19.5.2 Table 19-15 Table 19-17 Table 19-21 Table 19-22
6	6.0001	Private	Groundwater	Contaminated land	Submission references Chapter 13 Groundwater and provides solution regarding contaminated land sites.	ARTC should be conditioned to include all contaminated land sites including Wellcamp Airport and surrounding lands, power stations, sewage.	The ongoing baseline groundwater monitoring will be used to develop a representative baseline dataset, which will be used for comparison to assess any potential deterioration of water quality impacts resulting from the Project. The baseline water quality dataset, in addition to regular groundwater quality monitoring, will allow for trend analysis and the early detection of possible water quality changes, such as mixing of water types resulting from dewatering (see Chapter 15: Groundwater, Section 15.4). The ongoing baseline monitoring program has considered the contaminated assessment in the revised draft EIS Chapter 9: Land Resources, Section 9.3.2, to include additional analytes to identify existing impacts on groundwater prior to commencement of construction. Revised draft EIS Chapter 9: Land Resources includes more detail around, and references to, the contaminated land (see Section 9.4.5) and relevance to groundwater (see Section 9.4 and Table 9-27).	Chapter 15: Groundwater Section 15.4 Chapter 9: Land Resources Section 9.3.2 Section 9.4.5 Table 9-27
6	6.0002	Private	Groundwater	Water quality	Submission references Chapter 13 Groundwater and suggests monitoring of surface water, pipeline and waste water in solution.	Water monitoring in Gowrie creek and Wetalla pipeline and waste water in consideration of waste land.	The Wetalla pipeline is subject to meet criteria prior to release into Gowrie Creek. Each environmental aspect has undertaken a cumulative impact assessment outlined in Chapter 23: Cumulative Impacts. Through these assessments, the Wetalla Pipeline is not anticipated to be impacted by the Project. The maximum overall cumulative impact significance of each specific matter on surrounding projects is detailed in Section 23.3 and Table 23-8 of Chapter 23: Cumulative Impacts. This Table indicates that the only environmental aspect predicted to have impact on the Wetalla Pipeline is Flora and Fauna, the significance level for this being assessed as "Low".	Chapter 23: Cumulative Impacts Section 23.3 Table 23-8
6	6.0003	Private	Stakeholder engagement	Water quality	Submission references Chapter 13 Groundwater and suggests monitoring of surface water, pipeline and waste water in solution.	Results of monitoring to be made available for public comment.	ARTC will seek to maximise onsite reuse of wastewater generated by non-resident workforce accommodation, to avoid water required to be carted offsite for treatment and discharged. Where industrial or trade waste may be generated by construction activities, the resultant wastewater will be captured and, where possible, recycled. Where recycling is not feasible, the captured wastewater will be collected by a licenced contractor and taken offsite for disposal at an appropriately licenced wastewater facility (see Chapter 13: Surface Water, Section 13.5.1). A detailed discussion of ARTC's approach to construction wastewater is outlined in Appendix B5: Construction Water Requirements Report. ARTC has commenced a surface water monitoring program for the Project (Section 13.6.3 of Chapter 13: Surface Water). This Program consists of baseline surface water monitoring (commenced to inform the EIS) and construction surface water monitoring. Surface water quality monitoring requirements will be developed in consultation with DRDMW and DES, to be reviewed and accepted by the Environmental Monitor. Baseline groundwater monitoring is currently ongoing at Project bores along the Border to Gowrie alignment, in accordance with recognised groundwater sampling guidelines such as <i>Monitoring and Sampling Manual</i> (DES, 2016a) and <i>Groundwater Sampling and Analysis: A Field Guide</i> (Sundaram et al., 2009). Section 15.4.4, and 15.7.3 of Chapter 15: Groundwater. Section 15.7.3 details the proposed groundwater management and monitoring program (GMMP) for each Project stage and was updated as part of the revised draft EIS to reflect the ongoing groundwater monitoring program. Chapter 24: Draft Outline Environmental Management Plan states that construction compliance reports will be prepared periodically by ARTC. Such reporting will be posted on the Project website once validated.	Chapter 13: Surface Water Section 13.5.1 Section 13.6.3 Chapter 15: Groundwater Section 15.4.4 Section 15.7.3 Chapter 24: Draft Outline Environmental Management Plan Appendix B5: Construction Water Requirements Report
7	7.0001	Private	Traffic and Transport	Operational traffic	ARTC is diverting Dallman Road onto the Oakey Road, which is a main road which comes off the Gore Highway. Concerns are if vehicles (e.g. Road Trains) are turning right on the diverted road while waiting for through traffic, this will cause a backlog of traffic back up the Gore Highway.	ARTC needs to ensure slip lanes are put along the Oakey Road at the Dallman Road diversion intersection to maintain free flowing traffic. Submission has included a diagram to depict the solution.	The configuration of the priority intersections between Gore Highway/Oakey Pittsworth Road and Oakey Pittsworth Road/Quibet Road and the requirement for new turning lanes will be confirmed during the Detailed Design stage. Any proposed changes to local roads will be subject to ongoing discussions with TMR and TRC. However, in Appendix AA: Traffic Impact Assessment, Section 5.4.3, a turn warrant assessment has been completed at the Gore Highway/Oakey Pittsworth Road intersection to determine the necessity of upgraded turning lane treatments. The results of this assessment show that there is no upgrade required to manage either the development volumes or the volumes created by the diversion from Quibet Road. Further, in Appendix AA: Traffic Impact Assessment, Section 5.4.5, a delay assessment of the intersection has been completed to determine the functionality of the intersection under Project conditions. This assessment demonstrates an increase in average intersection delay by only one second due to development. The relevant more detailed outputs of this assessment are shown in Appendix AV of the revised draft EIS Appendix AA: Traffic Impact Assessment, which indicate an approximate one second increased delay on the Oakey Pittsworth Road approach. The Oakey Pittsworth Road/Quibet Road intersection, development vehicles do not use Quibet Road and, as a result, the volumes turning out of, or into Quibet Road are very minimal. A turn warrant assessment and a delay assessment have been completed in Appendix AA: Traffic Impact Assessment, Section 5.9.4. The assessments demonstrate that no upgraded turn warrant treatments are required to manage the increased traffic from the diversion and that the intersection has a maximum delay of five seconds and has no queuing back in any direction.	Appendix AA: Traffic Impact Assessment Section 5.4.3 Section 5.4.5 Section 5.9.4 Appendix AV
7	7.0002	Private	Traffic and Transport	Road safety	ARTC is diverting Dallman Road onto the Oakey Road, which is a main road which comes off the Gore Highway. Concerns are if vehicles (e.g. Road Trains) are turning right on the diverted road while waiting for through traffic, this will cause a backlog of traffic back up the Gore Highway (possibility of an accident)	ARTC needs to ensure slip lanes are put along the Oakey Road at the Dallman Road diversion intersection to maintain free flowing traffic. Submission has included a diagram to depict the solution.	The configuration of the priority intersections between Gore Highway/Oakey Pittsworth Road and Oakey Pittsworth Road/Quibet Road and the requirement for new turning lanes will be confirmed during the Detailed Design stage. Any proposed changes to local roads will be subject to ongoing discussion with TMR and TRC. However, in Appendix AA: Traffic Impact Assessment, Section 5.4.3, a turn warrant assessment has been completed at the Gore Highway/Oakey Pittsworth Road intersection to determine the necessity of upgraded turning lane treatments. The results of this assessment show that there is no upgrade required to manage either the development volumes or the volumes created by the diversion from Quibet Road. Further, in Appendix AA: Traffic Impact Assessment, Section 5.4.5, a delay assessment of the intersection has been completed to determine the functionality of the intersection under Project conditions. This assessment demonstrates an increase in average intersection delay by only one second due to development. Further detailed outputs of this assessment are shown in Appendix AV of the Appendix AA: Traffic Impact Assessment, which indicate an approximate one second increased delay on the Oakey Pittsworth Road approach. The Oakey Pittsworth Road/Quibet Road intersection, development vehicles do not use Quibet Road and, as a result, the volumes turning out of, or into Quibet Road are very minimal. A turn warrant assessment and a delay assessment have been completed in Appendix AA: Traffic Impact Assessment, Section 5.9.4. The assessments demonstrate that no upgraded turn warrant treatments are required to manage the increased traffic from the diversion and that the intersection has a maximum delay of five seconds and has no queuing back in any direction.	Appendix AA: Traffic Impact Assessment Section 5.4.3 Section 5.4.5 Section 5.9.4 Appendix AV
8	8.0001	Private	Noise and Vibration	Operational rail noise	ARTC admits residences within 1 km of the rail may experience noise at night above 49dB (Chapter 14 page 35 draft EIS) The evidence for increased rates of hypertension and myocardial infarction is strong when maximum night noise is above 50dB (Night Noise Guideline for Europe, WHO, 2009) with other long term effects likely but not yet proven.	It should be a condition of the EIS that every residence within 1 km of the rail is offered sound mitigation including where possible (but not limited to) rail dampers, track lubrication, noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L _{max} of 49. This should be at the proponents expense, and built by the proponent or its contractors prior to the Border to Gowrie Section of Inland Rail becoming operational.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations). The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, <i>The Health Effects of Environmental Noise, 2018</i> (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBa Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
8	8.0002	Private	Traffic and Transport	Level crossing	The Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 800 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities.	The EIS should be conditional upon no new level crossings being built over state or council roads.	<p>ARTC recognises the complex decision-making process surrounding public road-rail interfaces. ARTC also notes the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021. <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring a consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and is one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project alignment. Many road-rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023, the Office of the National Rail Safety Regulator (ONRSR) undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focusing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings has been applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessments and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on the road-rail interfaces performance under operational traffic conditions. This includes queue analysis for a short-stacking condition assessment, and a road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to Inland Rail Level Crossing Factsheet at: inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
9	9.0001	Private	Landscape and Visual Amenity		Concern that the project will obstruct views of the Yelarbon Silos, which are a huge attraction and recognised as amongst the best rural art in the country. In particular, the project will limit views from a specifically built viewing area. Submission notes that if Viewpoint 2 were shown facing the opposite direction, this faux pa would be glaringly obvious. Further, not committing to the type of noise and scenic mitigation measures to be constructed at Yelarbon prior to the detailed design phase is insulting to the whole community.	A perfect solution here would be to commit to the absolutely necessary noise mitigation design in such a way that a second mural was commissioned to increase rather than destroy the outlook from the specially constructed viewing area and for all traffic passing through.	<p>The fieldwork in Yelarbon for Landscape and Visual Impact Assessment for the revised draft EIS took place from 2018-2022. During initial site visits in 2018 the GrainCorp silos at Yelarbon were not part of the artwork trail and no visual receptors in the vicinity of Viewpoint 3 (the selected viewpoint) was considered to be much higher.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3: Yelarbon rest area has been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design.</p> <p>An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area. As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Assessment, Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and the Goondiwindi Regional Council.</p> <p>ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos are affected by noise walls, ARTC would facilitate provision of mitigation measures e.g. a complementary mural on the noise wall and/or roadside landscaping, in consultation with the Yelarbon community and Goondiwindi Shire Council.</p>	Appendix K: Landscape and Visual Impact Assessment Section 8.2.4 Section 9.1.4
9	9.0004	Private	Noise and Vibration	Operational rail noise	Concern about noise and vibration impacts to the Yelarbon School, and impacts to health on residents and school age children. Submission notes that their nephew is currently being schooled here. Many studies show Intermittent noise affects the performance of both auditory and non-auditory tasks and short term memory (submission includes link to a study about this). This noise effect is amplified in children. Table 14.20 of Chapter 14 of the EIS lists the maximum noise for schools and childcare centres as 40dB when a new rail line is built. The projected noise at Yelarbon School of 44dB inside and 51dB outside during the day is well above the guidelines for undisturbed learning, and even after mitigation ARTC says the indoor limit of 40dB will be exceeded.	Commit to specific mitigation measures intended to be deployed prior to the draft EIS being accepted.	<p>The revised draft EIS has been updated to address potential impacts from operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration. The noise assessment criteria, adopted from the Interim Guideline are designed to manage impacts to amenity and annoyance.</p> <p>The applicable DTMR operational rail noise criteria for both residential and educational receivers are same: Single Event Maximum ≤ 82 dB(A), $L_{Aeq,24hr} \leq 60$ dB(A) (Section 16.8 of Chapter 16: Noise and Vibration). Where these criteria are exceeded, feasible and practicable noise mitigation measures (e.g. noise barriers, at-property treatments) will be further investigated during the Detailed Design stage and installed prior to Inland Rail operations commencing (see Section 16.10 of Chapter 16: Noise and Vibration, Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations).</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 17
10	10.0001	Private	Approvals/conditions/recommendations	Mitigation measures	ARTC should list all MSES, MNES and the MLES for public consultation and allow amendments from the public before final submission.	This should be an enforceable condition of the approval.	<p>All relevant ecological assessment outcomes are detailed in Chapter 11: Flora and Fauna, Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.</p> <p>All stakeholders, interested organisations, and the public are invited to have their say during the public notification period. These reports were updated for the revised draft EIS. The Matters of Local Environmental Significance (MLES) will not be incorporated into the offset requirements of the Project, as the only relevant matters in line with regulatory requirements are MNES and Matters of State Environmental Significance (MSES).</p>	Chapter 11: Flora and Fauna Section 11.4 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 4.10, 4.11 and 5 Appendix O: Matters of National Environmental Significance Report
10	10.0002	Private	Approvals/conditions/recommendations	Offsets	ARTC should list all offsets, in layman's English, describing what, where and how the offsets are an improvement to the environment. Stakeholder agreement on offsets, because the stakeholders are feeling impact in their backyards.	Stakeholder engagement and agreement on the offsets. This should be an enforceable condition of the approval.	<p>Offsets will be managed in accordance with Australian Government and State Government requirements. Chapter 11: Flora and Fauna, Section 12.8 summarises Biodiversity Offsets requirements. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie details how the Inland Rail Program will deliver a strategic, primarily land-based, offset portfolio that will seek to deliver a conservation outcome that improves or maintains the viability of impacted MNES and/or MSES.</p> <p>To date, Inland Rail has acquired four of the anticipated six properties required to meet the Project's offset obligation based on the predicted Significant Residual Impacts identified in Chapter 11: Flora and Fauna, Section 12.8. Of the remaining properties, one property is under advanced negotiations while the remaining outstanding property is at the preliminary stages of the offset property dealing process. Section 6 of Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie outlines matter (e.g. MNES/MSES) specific management intent according to each offset property outlined in the Environmental Offset Delivery Strategy (EODS). As part of public exhibition, the EODS will disclose the offset property details of four ARTC-acquired offset properties, while the other two will be redacted due to privacy and confidentiality restrictions.</p>	Chapter 11: Flora and Fauna Section 11.8 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie Section 6
10	10.0003	Private	Approvals/conditions/recommendations	Offsets	Paid offsets shouldn't occur. Process doesn't seem transparent.	OCG should provide quarterly report to community in the newspaper on offset approvals, to inform and hold ARTC accountable when offset agreements are not met.	<p>Offsets will be managed in accordance with Australian Government and State Government requirements. Chapter 11: Flora and Fauna, Section 12.8 summarises Biodiversity Offsets requirements. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie details how the Inland Rail Program will deliver a strategic, primarily land-based, offset portfolio that will seek to deliver a conservation outcome that improves or maintains the viability of impacted MNES and/or MSES. Direct land-based offsets will be delivered for all impacted MNES and most MSES; however, at this stage Inland Rail can not rule out monetising a small proportion of residual MSES in accordance with the Queensland Environmental Offsets Policy (v1.16).</p>	Chapter 11: Flora and Fauna Section 11.8 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie Section 6
10	10.0004	Private	Flora and Fauna	Koala	Koala sustaining trees should have the rail deviate around. Koalas are already stressed due to climate and forest problems from Inglewood to Gowrie. The ARTC should be conditioned to not remove one tree that does or could assist will the living or feeding of Koalas whilst the track is being built they must deviate the track around these precious areas.	Any rural properties acquisition could have planting of Koala sustaining mature trees of at least 10 years age, and maintained by ARTC by means such as watering, weed control. Wildlife carers should be able to access these areas to harvest leaves for Koalas in their care.	<p>The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross-drainage and rail maintenance access roads. Habitat for threatened species has been avoided wherever possible, as outlined in Appendix L: Terrestrial and Aquatic Ecology Technical Report, Section 5.2.</p> <p>Following the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the Technical Ecological Assessment from AUSECOLOGY (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koala, during the construction stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, and operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>In instances where a significant residual impact has been identified, as per the EPBC Act Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie (see Section 6.3-Section 6.8), that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES.</p>	Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 5.2 Appendix M: Draft Koala Management Plan Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie Section 6.3 - 6.8
11	11.0001	Private	Social Impact Assessment	Local business and industry procurement	The location of the alignment will ruin the Millmerran Inglewood Road BnB and camping grounds that are very peaceful. Hospitality business will be impacted. State owned land should be sought, rather than farmland and private property.	ARTC should explain why farm land and not state owned land is chosen when it will impact business of people. Alternative routes should be sought. ARTC should contribute financially to tourism campaign to mitigate impact to business. Cash grants to business to diversify business plan.	<p>The Project alignment has been designed to minimise the number of properties affected by land acquisition. Where noise levels resulting from the Project exceed noise criteria, noise mitigation measures will be provided.</p> <p>The revised draft EIS was required to assess the Project alignment as indicated by the reference design. Appendix X: Social Impact Assessment, Section 7.5.2 notes that when the Project's Detailed Design stage is confirmed, ARTC will consult with tourism-related businesses located within five km of the Project and will develop a strategy, working with local Chambers of Commerce, tourist information centres and the Goondiwindi and Toowoomba Regional Councils, to ensure that any potential impacts on tourism visitation are mitigated. This could include support for tourism marketing campaigns targeting potentially impacted communities.</p> <p>It is not within ARTC's legal remit to provide cash grants to businesses.</p>	Appendix X: Social Impact Assessment Section 7.5.2
11	11.0002	Private	Land Resources	Modelling	Concerned for the maintenance cost and the ongoing safety of trainline by installing it on eroded land at the Canning Creek. ARTC should have modelled the effect of erosion on the banks of Canning Creek. ARTC should have considered the running cost of building on sandy ridge, or explored alternative route next to the roadway.	Model the effect of erosion on the Canning Creek banks. Seek alternative route next to roadway.	<p>The revised draft EIS is focussed on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Section 2.8 Chapter 2: Project Rationale. Section 2.9.3 detail the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment</p> <p>A review of the Flood Impact Objectives (FIOs) has been undertaken in consultation with the Expert Flood Panel to consider the NSW Quantitative Design Limits with revised FIOs detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. ARTC has incorporated the revised quantitative FIOs developed in consultation with the Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5 through to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Scour protection requirements for culverts during Reference Design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the reference design. A representative and conservative average bare soil erosive threshold velocity (ETV) value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection was allowed for within the revised reference design.</p> <p>Scour and erosion protection measures (including the need for flow spreaders and/or dissipators) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.3).</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9.3 Chapter 14: Flooding and Geomorphology Section 14.10.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 4.2 Section 5 - 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
11	11.0003	Private	Economics	Local business and industry procurement	Tourism to the area will suffer because of a freight line.	Consider alternative route.	<p>The purpose of the Investment Case (Inland Rail Programme Business Case 2015) was to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail Project. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution (Chapter 2: Project Rationale, Section 2.8.4). Once the financial (investment) decision had been made to proceed with the Project, the statutory approval process commenced. Inland Rail, as a State significant Project in Queensland, is required to respond to the Terms of Reference (ToR) with an Environmental Impact Statement (EIS), as required under the State Development and Public Works Organisation Act 1971. The purpose of the EIS process is to inform decision-makers and the public of the environmental consequences of implementing a proposed Project. The Economic Impact Assessment (EIA) identifies, predicts, and analyses impacts on the physical environment, as well as social, cultural, economic and health impacts. The proponent is required to produce documentation describing the proposal, the potential environmental impacts and how these impacts would be managed. The economic analysis provided in the EIS response is tailored to consider these impacts and appropriate mitigation measures. Employment results at the industry level (movement of workers between industries and regions) are outlined in the economic technical report. Under slack labour market conditions during construction, the results indicate there will be an expansion of employment in retail within the Darling Downs Maranoa Region which forms part of the tourism sector.</p> <p>During construction, there is potential for road works bridge construction, the visual impact of laydown areas, and the accommodation of non-residential workers to affect tourists' experience and travel times. This impact is anticipated to be small and will be temporary whilst construction activities are undertaken in particular areas. Following construction, the buildings and infrastructure established for the non-resident workforce accommodation facilities may be left for community use. This may enhance access to local facilities, with the potential to support tourism, such as in Millmerran. During consultation undertaken by ARTC, the Toowoomba Regional Council identified the location of a non-resident workforce accommodation facilities near Millmerran as having the potential to provide legacy benefits to support regional tourism. ARTC plans further consultation with Toowoomba Regional Council as potential accommodation non-resident workforce accommodation facilities sites are identified.</p> <p>During operation, there is potential for reduced scenic amenity due to the Project's location within the rural and regional landscape. It is likely that some visitors will see the proposal as diminishing rural character while others will find interest in the proposal structure. According to Appendix X: Social Impact Assessment, this is not expected to have a significant impact on tourism visitation.</p> <p>The preferred location for the proposed rail corridor (as presented in Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment. Refer to Appendix B3: Changes to Reference Design since Draft EIS.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.8.4</p> <p>Section 2.9</p> <p>Chapter 18: Economics</p> <p>Section 18.6</p> <p>Section 18.7</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 5.12</p>
11	11.0004	Private	Land Resources	Erosion	The rail alignment is proposed to come very close to Canning Creek. It is a bushwalking area, and prone to erosion. This could cause extra noise and even derailment, given it will increase chance of rails moving.	Seek alternative more suitable route.	<p>Erosion at Canning Creek has been investigated and is not considered to be high risk after changes to the design (see Section 14.7.8, Chapter 14: Flooding and Geomorphology).</p> <p>The EIS is focussed on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale Section 2.8. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9.3</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.7.8</p>
12	12.0001	Private	Noise and Vibration	Operational rail noise	There are health impacts including hypertension, myocardial infarction when night noise is above 50dBA. ARTC admits residences within 1 km of the rail will have exposure to 49dB.	Every residence within 1 km of rail should have sound mitigation offered such as noise barriers, earth mounds, insulation, double glazed windows paid for by ARTC prior to construction.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
12	12.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. EIS should be conditional upon no new level crossings being built over state or council roads.	EIS should be conditional upon no new level crossings being built over state or council roads.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring a consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and is one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 the Office of the National Rail Safety Regulator (ONRSR) undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings has been applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.6</p> <p>Section 3.7</p> <p>Section 5.8</p> <p>Section 5.9</p> <p>Appendix BT</p>
12	12.0003	Private	Traffic and Transport	Level crossing	The proposed crossing across highway near farm of Woodspring is not safe, and prone to accident due to families, stock, native animals using the crossing.	Grade separation crossings only.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millmerran and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include factors such as sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.7.6</p> <p>Section 5.8</p> <p>Section 5.9</p> <p>Appendix BT</p>
13	13.0001	Private	Noise and Vibration	Operational rail noise	A night time noise above 50dB has health risks of hypertension and myocardial infarction. ARTC proposes that residences within 1 km will have a night-time noise above 49dB.	Every house within 1 km should have sound mitigation installed by ARTC before operation of trains including insulation, earth mounds, double glazing and air conditioners.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq, night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 11</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
13	13.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. There should be no new level crossings being built over state or council roads.	Grade separated crossings only.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings: one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
14	14.0001	Private	Groundwater	Construction water supply	Directly impacted landowner within 1 km of ARTC. Concerned by Rail construction impacts on water bores for the supply of water for stock and domestic use. Need more information from ARTC regarding any impact on our property this infrastructure will cause.	Impact on water bores needs further public comment and consultation by contacting directly impacted owners.	<p>Predictive groundwater modelling was undertaken to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (i.e. cuts most likely to intersect groundwater). The revised draft modelling results indicated that the extent of drawdown is predicted to extend 10 m to 43 m from the centre of the Project alignment (from the deepest cuts) during the Construction Works stage. The modelling was updated and further refined as part of the revised draft EIS, see Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.</p> <p>ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project (see Chapter 15: Groundwater, Section 15.5.4). This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging. Real properties (tot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey. Revised draft EIS Section 15.5.4 and Section 15.7.4 of Chapter 15: Groundwater have been updated with groundwater users, potential make-good policy and measures. Details of the proposed make-good measures are detailed in Table 15.20 and Section 15.7.4 of Chapter 15: Groundwater. However, the measures developed for each impacted bore will be unique and commensurate with the level of impact realised, therefore specific details cannot be provided at this time.</p>	Chapter 15: Groundwater Section 15.5.4 Section 15.6.2 Section 15.7.4 Table 15.20 Appendix U: Groundwater Technical Report Section 6.3
15	15.0001	Private	Groundwater	Water quality	The impact of the cuts from ARTC are in the EIS as assessed as site specific. The seepage values are quantified as "low" bases on the average of site specific data. More information is required in wet weather events on the proposed track, local residents and property impacts.	Analysis of seepage on property impacts due to weather and cuts.	<p>As part of the revised draft EIS, predictive groundwater models were developed to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts were selected as best representing the cuts most likely to intersect groundwater, local geological conditions and worst-case potential impacts. The revised modelling results indicate that the horizontal extent of drawdown is to extend a maximum of 10 m to 43 m horizontally from the rail centreline from the deepest cuts. The model was updated to reflect the refined alignment and design as part of the revised draft EIS and the results are presented in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.5. Figures 6.14-6.16 provided in Section 6.3.5 visually demarcate the anticipated extent of drawdown.</p> <p>To account for seasonal/wet weather events, the modelling adopted various assumptions (e.g. increased hydraulic conductivity and doubled rainfall estimates) to identify conservative potential impacts of additional rainfall/recharge to the cuts during construction (see Appendix U: Groundwater Technical Report, Section 7.3).</p>	Chapter 15: Groundwater Section 15.6.2 Appendix U: Groundwater Technical Report Section 6.3.5 Section 7.3 Figure 6.14 Figure 6.15 Figure 6.16
15	15.0002	Private	Groundwater	Mitigation measures	The alternative seepage control measures appears unproven. What are the measures? Information on the alternative measures should be known.	Publish the alternative seepage control measures.	<p>Seepage from deep cutting faces will be managed in accordance with Queensland Rail Civil Engineering Standard QR-CTS-Part 35 – Stone and Concrete Slope Protection (QR, 2010). It is noted that these engineering controls are installed to relieve groundwater pressure in colluviums, residual soil, weathered rock or along joints in the rock mass and are not specifically designed as seepage control measures. Deep cuts will be drained in perpetuity, as required to prevent groundwater pressure build-up and maintain the structural integrity of the cutting faces.</p> <p>Further detail regarding seepage control measures is provided in Chapter 13: Surface Water Section 13.5.1, Chapter 15: Groundwater Section 15.7.1 and Table 15-20, and Appendix U: Groundwater Technical Report Section Table 8-1 and 8-2. A review of selected seepage control measures will be conducted as part of the Detailed Design stage.</p>	Chapter 13: Surface Water Section 13.5.1 Chapter 15: Groundwater Section 15.7.1 Table 15-20 Appendix U: Groundwater Technical Report Table 8.1 Table 8.2
15	15.0003	Private	Groundwater	Modelling	The language within the EIS needs clarity. What area is the "eastern portions" - is this inclusive of Black Soil Plains? How deep are the volcanic basalt aquifers and will the black soil plains be protected?	Nil	<p>The 'eastern portion' refers to the Project footprint which is underlain by the Clarence-Moreton basin to the east of the Kumburilla ridge. The volcanic basalt aquifers of the Main Range Volcanics has the thickness up to 150 m below ground level (mBGL) and does not intersect surface soil horizons. Section 9.4.1 of Chapter 9: Land Resources covers potential impact to soils.</p>	Chapter 9: Land Resources Section 9.4.1
15	15.0004	Private	Groundwater	Survey effort/field investigation data	How is the baseline groundwater sampling conducted, when and where? Concerned about impact to the Great Artesian Basin by the project.	ARTC must ensure that no damage occurs to the Great Artesian Basin, the impact of any downgrade or damage across the Artesian Basin area would be a national disaster. ARTC must obtain scientific advice and research on this issue.	<p>Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (see Chapter 15: Groundwater, Section 15.4.4). Section 15.7.3 describes the proposed groundwater management and monitoring program (GMMP) for each Project stage and has been updated as part of the revised draft EIS to reflect the ongoing groundwater monitoring program.</p> <p>The predicted impacts on groundwater resources are limited in extent to the vicinity of deep cuts that are likely to intersect groundwater. The Great Artesian Basin underlies the impact assessment area, and some Great Artesian Basin units have the potential to be sensitive to impacts from Project activities, including the WCM and the Kumburilla Beds. While the Marburg Subgroup (the equivalent of Hutton Sandstone in the Surat Basin) is a regionally significant aquifer, and a small area is mapped as an outcrop in the groundwater impact assessment area near Inglewood, no impacts on this unit are predicted. Otherwise, the Hutton Sandstone is below the depth of interest for the Project (i.e. 90 m; maximum design depth is 21 m BGL) and is not considered to be susceptible to impacts by the Project (see Chapter 15: Groundwater, Table 15-6). Other than limited and isolated minor impacts related to deep cuts likely to intersect groundwater of GAB units, regional impacts to the Great Artesian Basin are not expected nor predicted to occur.</p>	Chapter 15: Groundwater Section 15.4.4 Section 15.7.3 Table 15-6
15	15.0005	Private	Groundwater	Survey effort/field investigation data	The EIS says 3 of 5 locations expected to have drawdowns between Border to Gowrie and groundwater disturbances due to cuttings. More information on how the modelling was conducted and by who is sought, and impact to farmland outlined.	Mitigation measures to impact to drawdown, bores and arrangement for decommissioning. ARTC must identify the locations between the "Border to Gowrie" and advise what organisation modelled these locations?	<p>Details of the predictive groundwater model are provided in Appendix U: Groundwater Technical Report, Section 6.3. Details and the rationale of the cuts selected, model inputs and assumptions, boundary conditions and results are provided. Further, potential impacts as a result of loss or damage to existing groundwater bores and drawdown due to seepage are detailed in Appendix U: Groundwater Technical Report, Section 7.1.1 and Section 7.2.1.</p> <p>It is noted that the revised draft EIS indicates no anticipated impacts to registered bores outside the construction footprint as a result of groundwater drawdown. A water/groundwater bore survey has been issued to landowners to confirm the location/presence of water supplies that may be impacted by the Project. Where necessary, make-good measures will be developed on case-by-case basis in consultation with the landowner. Details of the proposed potential make-good measures are detailed in Table 15.20 and Section 15.7.4 of Chapter 15: Groundwater. However, the measures developed for each impacted bore will be unique and commensurate with the level of impact realised, therefore specific details cannot be provided at this time.</p>	Chapter 15: Groundwater Section 7.3.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6.3 Section 7.1.1 Section 7.2.1
15	15.0006	Private	Groundwater	Groundwater drawdown	The impact of the drawdown on groundwater and absence of mitigation measures proposed in the EIS shows that ARTC do not care for farming communities. The number of stock and household bores stated in the EIS (30) is not correct.	Full independent review of water usage by the project.	<p>The Project footprint (temporary footprint required to enable the Project and permanent footprint that remains after construction) is wholly contained within the groundwater impact assessment area (1-km radius from rail centreline). Chapter 15: Groundwater, Section 15.5.4 details the breakdown for registered and unregistered bores within the impact assessment area, and how that information was utilised to develop the revised draft EIS. The predictive modelling does not indicate impact to any bore (registered or not) from predicted Project groundwater impacts. Project-specific monitoring bores were installed, as detailed in Section 15.4. A total of 48 Project bores comprise the revised groundwater monitoring network and can form the basis of the groundwater management and monitoring plan (GMMP) (Table 15-21, Chapter 15: Groundwater).</p> <p>The groundwater predictive modelling undertaken as part of the revised draft EIS indicates that the horizontal extent of drawdown will to only extend a maximum of 10 m to 43 m horizontally from the rail centreline (from the deepest cuts). This drawdown will be localised around the vicinity of the deep cuts that intersect groundwater only and no regional groundwater drawdown/wider impact on the aquifer is anticipated. Currently no bores are anticipated to be impacted by groundwater drawdown from the Project. Revised draft EIS Section 15.5.4 and 15.7.4 of Chapter 15: Groundwater and Appendix U: Groundwater Technical Report, Section 4.7.5, 8.2 and 8.3.4 have been updated accordingly with groundwater users, the 'make-good' strategy and proposed measures.</p> <p>As part of ARTCs construction water planning process, construction water procurement studies are ongoing including options analysis. As part of these works, estimates of water usage are being calculated. Detailed discussion of ARTCs approach for construction water is outlined in Appendix B5: Construction Water Requirements Report.</p>	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-21 Appendix B5: Construction Water Requirements Appendix U: Groundwater Technical Report Section 4.7.5 Section 8.2 Section 8.3.4
15	15.0007	Private	Groundwater	Groundwater drawdown	The estimated water used during construction phase and water requirements to maintain structural stability of infrastructure such as high banks and track foundations needs to be known. The submitter highlights the importance of water to the towns and farming communities and hence the amount of water to be consumed by the IR project needs to be analysed so as to ensure that adequate water is available for farms and towns along the proposed line.	A full independent review is required on the total water usage required to maintain the tracks in a safe and stable condition and ensure the viable supply of adequate water for farms and towns along the proposed line.	<p>As part of ARTC's construction water planning process, construction water procurement studies are ongoing including options analysis (see Chapter 5: Project Description, Section 5.6.24). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water. As part of these works, estimates of water usage are being calculated. Currently the hierarchy of options for construction water supply prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, it would be secured through private agreement through trading or purchasing of existing allocated entitlements, and the licenced capacity of existing bores will not be exceeded as described in Table 15-17 and 15-20 and Table 8-2 of Appendix U: Groundwater Technical Report.</p> <p>It is anticipated that groundwater will not be required post Construction Works stage for the ongoing track stability during the Operations stage of the Project.</p>	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Table 15-17 Table 15-20 Appendix B5: Construction Water Requirements Appendix U: Groundwater Technical Report Table 8.2
16	16.0001	State Agency	Approvals/conditions/recommendations		No issues.	Nil	<p>ARTC note that Queensland Ambulance Service, Darling Downs Local Ambulance Service Network advised that there were no issues with the draft EIS. Consultation with the Queensland Ambulance Service and Office of the Minister for Health and Minister for Ambulance Services is outlined in Table E-18 and Section 4.2.3.1 of Appendix E: Consultation Report.</p>	

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
17	17.0001	Private	Traffic and Transport	Level crossing	The area near Millmerran Road is prone to fire risk with drought, farms, community and forestry. The delay to the arrival of Millmerran auxiliary fire brigade and other emergency services due to the proposed level crossing and train flow is a dangerous risk.	Relocate the train to the other side of the road as to not interrupt traffic on Millmerran Road.	<p>The Border to Gowrie alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine (Chapter 2: Project Rationale). ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> ▶ Fewer farms affected mid-block ▶ Fewer farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. aparies permits, grazing leases and timber values with the forest. <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at-grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Chapter 2 Project Rationale Section 2.7 Appendix AA: Traffic Impact Assessment Section 3.7.6
18	18.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. No new level crossings being built over state or council roads.	Alternatives to level crossings.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings: one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
18	18.0010	Private	Noise and Vibration	Operational rail noise	Rates of hypertension and myocardial infarction are increased when maximum night noise is above 50dB. ARTC has stated residences within 1 km of the project will experience a night time noise of above 49dB.	Residences within 1 km of the rail should have sound mitigation paid for by ARTC noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L_{Amax} of 49.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17
19	19.0001	Private	Noise and Vibration	Operational rail noise	Rates of hypertension and myocardial infarction are increased when maximum night noise is above 50dB. ARTC has stated residences within 1 km of the project will experience a night time noise of above 49dB.	Residences within 1 km of the rail should have sound mitigation paid for by ARTC noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L_{Amax} of 49.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17
19	19.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. No new level crossings being built over state or council roads.	Alternatives to level crossings. The EIS should be conditional upon no new level crossings being built over state or council roads.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings: one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
20	20.0001	Private	Noise and Vibration	Operational rail noise	Rates of hypertension and myocardial infarction are increased when maximum night noise is above 50dB. ARTC has stated residences within 1 km of the project will experience a night time noise of above 49dB.	Residences within 1 km of the rail should have sound mitigation paid for by ARTC noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L _{max} of 49.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17</p>
20	20.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. No new level crossings being built over state or council roads.	Alternatives to level crossings. The EIS should be conditional upon no new level crossings being built over state or council roads.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings: one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT</p>
21	21.0001	Private	Stakeholder engagement	Directly impacted landowner	We are a family of 11 kids, and lease a property impacted by the rail. No clear advice for specific property and impacts to lease arrangements, particularly regarding animals. The submitter wants to know after changes in land ownership who the new owners will be and will her family be allowed to rent further, as well as will there be any reduction in rent owing to the repercussions from the construction and its aftermath.	ARTC should update website with a FAQ for tenants and make property impact information available to landlords.	<p>ARTC has engaged with all directly impacted landowners along the Project alignment. Engagement with interest holders, including tenants, has been at the discretion of the landowners, and this process is ongoing in conjunction with Department of Transport and Main Roads (DTMR) (the acquiring authority). Each scenario of acquisition will be on a case-by-case basis and determined by DTMR.</p> <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners through detailed design and construction to mitigate impacts, accommodate the continuation of current property management activities and access, where possible. Individual property treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required and if possible.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 5.1</p>
21	21.0003	Private	Noise and Vibration	Operational rail noise	The operational rail noise will prevent children from hearing if I called out if something happened. The environmental noise levels at my house will result in 13% being "highly annoyed" and 23% of having sleep disturbance. This level of noise expected at the house is linked in heart disease.	ARTC should construct noise mitigation barrier at location.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17</p>
21	21.0005	Private	Land Use and Tenure	Mitigation measures	The land I lease will be impacted by the project. The EIS says there will be 1.8 m chain link fencing that will be provided close to roads and communities. I need assurance that the fence will be provided on my property as I have animals and are near Gore Highway. The submitter needs reassurance about fencing to keep away her children and animals from the rail.	Provide chain link fence at 202 Purcell Road Umbiram	<p>This issue is noted. Adjustments may be made during the Detailed Design stage of the Project to consider at-property treatments by the appointed contractor.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, fencing will be provided for the majority of the rail corridor and its primary purpose is to limit access to the railway. Fencing will act to protect adjoining lands from trespass and to prevent stock on adjoining land from gaining access to the railway. Fencing is to extend between the corridor and landowners or occupiers adjoining the railway, with any specific requirements to be designed in consultation with the adjoining landowner.</p> <p>As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au). Further information about the Project's fencing strategy is provided in Chapter 5: Project Description, Section 5.4.12). Where superior fencing is required (e.g. where tracks are in close proximity to roads and/or communities, or where trespass is anticipated) a 1.8 m chain link boundary fence may be provided.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises (see Chapter 8: Land Use and Tenure, Section 8.6.2). This has included the identification of:</p> <ul style="list-style-type: none"> ▶ Landowners property access needs and the closure of private roads ▶ Affected property infrastructure such as fences and dams ▶ The potential for changes to groundwater access. 	<p>Chapter 5: Project Description Section 5.4.12 Chapter 8: Land Use and Tenure Section 8.6.2 Section 8.6.3</p>
21	21.0006	Private	Land Use and Tenure	Directly impacted landowner	We have been told that some or all of the land we live on is being taken for the construction of the new rail corridor but nobody has explained which land or what it will mean for our lease. Who will become the new owner of the block? Will we be able to enter into a lease agreement with them? Will the rent be cheaper because the block is louder and smaller? Will the fencing be fixed so that we can continue to keep animals? OR will we be asked to leave? And how long will we be given to find somewhere to go?	ARTC should update website with a FAQ for tenants and make property impact information available to landlords.	<p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, Table 8-51, ARTC will carry out detailed design to further refine the Project footprint identified and assessed in the EIS, to that which is required to safely construct, operate and maintain the Project. This will minimise property acquisition requirements, property severance and disruption to land use and transport networks.</p> <p>Where property acquisitions are required, these will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld). Compensation will be provided where the Project requires the acquisition of properties in accordance with the requirements of the Acquisition of Land Act 1967 (Qld).</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.2, ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> ▶ Landowners needs regarding access to the properties and the closure of private roads. ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. ▶ The potential for changes to groundwater access. <p>ARTC works directly with the landholder regarding impacts to property. Department of Transport and Main Roads, as the controlling authority for the land acquisition process, also work directly with the landholder. Tenants should direct questions to the property owner or their property manager.</p>	<p>Chapter 8: Land Use and Tenure Section 8.6.2 Section 8.6.3 Table 8-51</p>
22	22.0001	Private	Traffic and Transport	Level crossing	The level crossings at Cunningham Highway and Yelarbon Rail yard are currently used and a proposed to be removed in the EIS. Pedestrian access across the rail line at Yelarbon is essential for sawmill employees, Grain Corp workers accessing town during lunch breaks, walking tour of town, and access to the northside of the tracks generally. Not all residents have a vehicle to drive around via road over rail overpass west of Yelarbon a trip over 3 km to the shops, and no public transports are available.	Solution to pedestrian access north and south of rail line Yelarbon, Proposed location: 154-100 km west end as there is only one track to go under Construct a Pedestrian under pass below rail line using concrete culverts size height width as determined by the project Engineers with storm water diversion's in place and water catchment location in the event water did enter the underpass it then could be pumped out with water pumps. with safety fencing to stop people from encroaching the railway line this would be a viable option that would allow people to cross from either side of town, this type of pedestrian walkway is used under roads e.g., under the Cunningham Highway by pass Goondiwindi.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the reference design reviews and updates for the Yelarbon road rail interfaces and the proposed pedestrian crossing facilities.</p> <p>As part of the revised reference design a dedicated active pedestrian level crossing has been added at the existing Cunningham Highway interface location (310-11-E-1) to enable pedestrian movement north/south of the Yelarbon township.</p> <p>ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains in a Third Party Agreement with local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.7.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
22	22.0002	Private	Land Use and Tenure	Mitigation measures	Pedestrian connectivity between north Yelarbon and the town centre will be severed without pedestrian underpass. This will impact the attractiveness of land available for housing on the north side of town.	Solution to pedestrian access north and south of rail line Yelarbon, Proposed location 154-100 km west end as there is only one track to go under Construct a Pedestrian under pass below rail line using concrete culverts size height width as determined by the project Engineers with storm water diversion's in place and water catchment location in the event water did enter the underpass it then could be pumped out with water pumps. with safety fencing to stop people from encroaching the railway line this would be a viable option that would allow people to cross from either side of town, this type of pedestrian walkway is used under roads e.g.; under the Cunningham Highway by pass Goondiwindi.	It is proposed to provide an active pedestrian level crossing in Yelarbon as described in Chapter 20: Traffic, Transport and Access (see Table 20-27) and Chapter 5: Project Description (see Table 5-15) included in the revised reference design. The proposed pedestrian crossing nominal location is shown Appendix B3: Changes to Reference Design since Draft EIS. ARTC suggests that any informal pedestrian routes crossing the existing Queensland Rail tracks, inclusive of GrainCorp siding, are unapproved and present a safety risk to pedestrian users. Consultation will continue with Goondiwindi Regional Council regarding pedestrian crossing options during detailed design. The Project will also consult with directly affected landowners to understand Project related impacts and consider mitigation measures including property-based solutions where appropriate. Chapter 20: Traffic, Transport and Access (see Section 20.5.1) states that for public crossings, ARTC will continue to undertake necessary consultation with Department of Transport and Main Roads and local governments through the Detailed Design stage in relation to the preferred road-rail interface treatments for each location. Part of this process is to work with the relevant road manager to understand the local environment and gather information on future development plans, which can be used to inform the design. In all instances, the design and safety principles introduced in Chapter 5: Project Description and Chapter 20: Traffic, Transport and Access will be used to guide the design decision-making process. Where level crossings and road diversions are proposed, these were determined based on a number of factors, including the nature of existing access to properties, potential traffic levels, existing land use, location of nearby interfaces, adjoining properties and the vertical geometry of the rail alignment (see Chapter 20: Traffic, Transport and Access, Section 20.3). Vehicle wait time at level crossings, as well as the anticipated change travel time and distance from road diversions, have also been considered when determining appropriate crossings at road-rail interfaces.	Chapter 5: Project Description Table 5-15 Chapter 20: Traffic, Transport and Access Section 20.3 Section 20.5.1 Table 20-27 Appendix B3: Changes to Reference Design since Draft EIS
23	23.0002	Private	Traffic and Transport	Level crossing	Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. No new level crossings being built over state or council roads.	Alternatives to level crossings. EIS should be conditional upon no new level crossings being built over state or council roads.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings: one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and the understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology. In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet .	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
24	24.0001	Private	Traffic and Transport	Level crossing	The EIS proposed level crossing at 'Woodspring' crossing the Millmerran Road 8 km north of Inglewood. For public safety do not have a level crossing at Woodspring. Any rail crossing of the Millmerran Road must be a flyover for either road traffic or rail traffic. There are three proposed rail crossings between Inglewood and Millmerran, this will be the only a level crossing in the area. The submitter has seen many fatalities in the Woodspring area and fears that it will increase with the rail project.	Rail alignment should be on the western side of the Millmerran Road and as alternative, have just one crossing near Millmerran. This will help save lives as the level crossing is prone to accidents. It will also save money and traffic disruptions.	The Border to Gowrie alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road: <ul style="list-style-type: none"> Fewer farms affected mid-block Fewer farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewer residences within 200 metres. To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests': <ul style="list-style-type: none"> Restriction of access Loss of flora and fauna Changes to bushfire management Weeds and pests Changes to drainage and minimising sediment and erosion Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations. The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project. The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared. The IR scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.	Appendix AA: Traffic Impact Assessment Section 3.7.6 Section 5.8 Section 5.9 Appendix BT
25	25.0001	Private	Project scope	Infrastructure crossings/interation	For the future, ARTC should construct passenger platforms at Toowoomba and Goondiwindi for XPT services.	Build passenger platforms at Toowoomba and Goondiwindi for XPT services.	The industry and freight customers have been consistent in expressing their priorities throughout this process and these remain at the core of the service offering. They highlighted the need for flexibility, interoperability, the importance of terminals and clearly stating the target for reliability. Passenger platforms are not within the scope of the project, however Inland Rail will be open for any accredited operator to run a train along the rail line, once operational. The Business Case is based upon operators transporting freight (domestic goods) across a range of sectors to our cities, such as fresh food, packaged goods, hardware, white goods, and bulk goods. Inland Rail is freight infrastructure, however, the decision to run passenger services will be a matter for each State Government or for private operators. ARTC, the operators of Inland Rail, have a long history of working with Government and private operators to ensure passenger trains have access to the national rail network. This will continue to be the case for Inland Rail.	N/A
26	26.0001	Private	Approvals/conditions/recommendations	Baseline/background sampling	The EIS has sections that are not of adequate detail or depth.	Redo the MCA	All EIS chapters and reports have been updated following submission of the draft EIS and a review of the proposed Project alignment. The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). As described in Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix E: Consultation Report
26	26.0002	Private	Social Impact Assessment	Cumulative impacts	Cumulative impact of the rail alignment through township of Pittsworth does not bring prosperity to the town with a population of 3,294. Liveability of towns impacted was not weighted in the multi-criteria analysis.	Seek alternative route via Cecil Plains and Mount Tyson. Even if this route adds extra time to the overall travelling time, it would still only be an additional 20 minutes via Cecil Plains, and will still keep the time below the upper limit of 24 hours.	Appendix X: Social Impact Assessment, Section 1.2 notes the Project alignment diverts from the existing rail line to travel to the north of the Pittsworth township, reducing impacts on the town. The Border to Gowrie Project Terms of Reference require that the selected alignment is assessed. The MCA was a separate process to the EIS.	Appendix X: Social Impact Assessment Section 1.2
26	26.0003	Private	Noise and Vibration	Operational rail noise	The rail noise will cause sleep loss for Pittsworth residents, all 3294 of them.	Seek alternative route via Cecil Plans and Mount Tyson	ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment and impact to sleep. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Border to Gowrie Project alignment as per the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration. Sleep disturbance has been assessed using the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018') (refer to Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations) As noted in Section 2.9.3 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. Section 2.9.3 of Chapter 2: Project Rationale explores the Cecil Plains and Mount Tyson alternative route, specifying why the route was discounted. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Section 17
26	26.0004	Private	Social Impact Assessment	Property Devaluation	The route multi-assessment criteria does not consider liveability. The alignment through town of Pittsworth will result in property devaluation.	Reconsider alignment through Pittstown. Choose route through Cecil Plains and Mount Tyson	Appendix X: Social Impact Assessment, Section 1.2 notes the Project alignment diverts from the existing rail line to travel to the north of the Pittsworth township, reducing impacts on the town. The revised draft EIS Terms of Reference require that the selected alignment is assessed. The MCA was a separate process to the EIS. The submission indicates concern about the effects of noise on property values in Pittsworth. Appendix X: Social Impact Assessment, Section 7.1.4 notes that at the townships of Brookstead and Pittsworth, the predicted noise levels and location of the nearby sensitive receptors triggered an investigation of rail noise barriers. Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in Appendix X: Social Impact Assessment, Section 7.1. As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres. All relevant research the EIS team could identify is presented within Appendix X: Social Impact Assessment.	Appendix X: Social Impact Assessment Section 1.2 Section 7.1.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
26	26.0005	Private	Land Resources	Severance of agricultural land	The multi-criteria analysis did not capture the impact on prime agricultural land in Pittsworth when selecting the proposed alignment. This will result in loss of strategic cropping land.	Seek alternative route through Mt Tyson and Cecil Plains.	<p>The Project has been aligned to be co-located with existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However, for several reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land. Chapter 8: Land Use and Tenure, Section 8.5.1, has been updated for the revised draft EIS, detailing land to be sterilised due to the revised alignment. As described in Chapter 2: Project Rationale Section 2.8-2.10, of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that there will be a loss of agricultural land that cannot be avoided. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondwindi, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 percent of Class A land, 0.19 percent of Class B land, and 0.01 percent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately:</p> <ul style="list-style-type: none"> 0.17 percent of Class A land, 0.22 percent of Class B land, and, 0.19 percent of IAA land <p>Where the loss of agricultural land was unable to be avoided, refinement of the horizontal alignment was considered (among other environmental, social, cultural, economic and technical constraints), and placement of the rail corridor such that it traverses around or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided Chapter 8: Land Use and Tenure, Section 8.5.4).</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed based on these over-arching factors; therefore, a like-for-like replacement for the loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint cannot avoid the severance of agricultural land and enterprises due to the partial property acquisition, the acquisition will be investigated in consultation with landowners (Chapter 8: Land Use and Tenure, Section 8.5.2 and 8.6.2). The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design in accordance with the <i>Acquisition of Land Act 1967</i> (QLD).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 8: Land use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.5.2</p> <p>Section 8.5.4</p> <p>Section 8.6.2</p>
26	26.0006	Private	Project alignment	Baseline/background sampling	The multi-criteria analysis was too skewed to minimising capital expenditure and minimising transit time that it doesn't adequately weight towards the impact for townships it passes through. Additionally, given the positive CSIRO study on ARTC business case findings being much stronger, and ABC speculating more funds will be available, a new MCA should be conducted. More appropriate weighting given to public nuisances from noise, number of families impacted, safety and preservation of prime agricultural land. Route should travel an extra 20 minutes via Cecil Plains and bypass Brookstead and Pittsworth townships.	Re-do MCA with more weighting toward impact to people in townships.	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Chapter 2: Project Rationale, Section 2.9.3). Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community.</p> <p>As noted in Chapter 2: Project Rationale, Section 2.9.3 and 2.10.12, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.9.3</p> <p>Section 2.10</p> <p>Section 2.10.12</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix E: Consultation Report</p>
26	26.0007	Private	Flooding		The current route via Pittstown has the rail crossing the floodplain. There are flooding concerns.	Redo the MCA. Re-route via Cecil Plains and Mount Tyson to avoid crossing the floodplain.	<p>The revised draft EIS is focused on the chosen alignment selected by the Australian Government.</p> <p>The chosen alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale Section 2.8.</p> <p>Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9.3</p>
27	27.0001	State Agency	Land Use and Tenure		Property access is impacted to Yarranlea T010 zone substation site is described as Lot 1 on RP120604 Toowoomba Regional Council and is Freehold tenure of approximately 3.2ha in area. It is critical to EQL maintaining all-weather access to this important zone substation. While a small levy was constructed within the rail corridor the inadequate design and subsequent maintenance led to silt deposits on the substation access, preventing vehicle access to the substation at critical times. EQL has since undertaken mitigation works on the substation Lot to manage this issue however please note Queensland Rail's obligations under the plan.	ARTC and Railway investigate Registered Soil Conservation Plan SC300986 and access to Substation at Yarranlea	<p>ARTC and their hydrology specialists have consulted with Energy Queensland on this matter, following preliminary flood modelling and investigations into this submission. Energy Queensland have advised they are satisfied with actions undertaken to date and ARTC will continue consultations during detailed design.</p> <p>ARTC have reviewed SC300986 as part of their investigation into this matter and consultation has occurred with Energy Queensland on access to the substation at Yarranlea. Consultation will continue during detailed design.</p> <p>In addition, the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.6.3 (Table 8-51), states that the utility interface solutions that have been included in the reference design have been discussed with individual utility owners and are presented in Section 8.5.1. The exact methodology for utility modification, upgrade, diversion or realignment will be subject to confirmation once the Project's design is finalised and will be determined through further consultation with the affected utility owners. Details on consultation undertaken through the reference design process is provided within Appendix E: Consultation Report. Further geotechnical and soils investigations has been completed to inform the development of the detailed design. This additional information will provide details on the geotechnical condition of materials in proximity to key underground utility infrastructure within the Project footprint.</p> <p>Specific outcomes included methodologies for treating impacted utilities, providing indications of construction timeframes and the current status of the rail design. The methodology for mitigating the impact of the interface between utilities and the alignment include modification to the utilities, upgrade of the utilities, and diversion or realignment of the rail. Specific methodologies for individual utilities will be finalised through further consultation with providers and integrated into the design of the alignment in detailed design. ARTC will continue to liaise with Energy Queensland to address interface requirements between the Project and electricity infrastructure to avoid any impacts to the local electricity network (Chapter 8: Land Use and Tenure, Table 8-51). The consultation approach is further detailed in Chapter 6: Stakeholder Engagement.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.3</p> <p>Table 8-51</p>
27	27.0002	State Agency	Groundwater	Flood immunity	Soil Conservation Plan SC300986 was counter-signed by Queensland Electricity Corporation (QEC) and Queensland Railways in 1986. The plan covers country on the southern side of the rail line however it impacts on Yarranlea T010 by allowing delivery of stormwater close to the site. With requirement that the Railway Department installs a suitable culvert under the railway that a levy bank be constructed on the QEC property to direct any flow of water from this culvert away from the substation. The levy was constructed within rail corridor was inadequately maintained and now silt deposits are across the access route preventing cars from traveling.	It is QR's obligation to maintain levy under the agreement. ARTC should review the Soil Conservation Plan.	<p>Detailed design will involve a review of all relevant Sediment Control Plans (i.e. those detailed in Chapter 9: Land Resources, Section 9.4.4 and Section 9.5.5, Chapter 9: Land Resources), as well as engagement with affected stakeholders and all requirements of the plans will be incorporated in drainage design. SC300986 is located near Ch 163-164 km and is an approximately 50 ha contour-banked catchment to farm dam near culvert at Ch 161.5 km of the Project alignment that has the potential to direct corridor drain into contour banks away from fill (see Table 9-23).</p> <p>According to Chapter 13: Surface Water, Table 13-15, there is a known sediment basin around this location (sediment basin ID 8 at Ch 164.3 km).</p> <p>Appendix B1: Design Drawings and Chapter 5: Project Description (Table 5-11) outline that a road-over-rail bridge is proposed to be developed to ensure the QR line remains and maintenance can be maintained in accordance with QR and Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 5: Project Description Table 5-11</p> <p>Chapter 9: Land Resources</p> <p>Section 9.4.4</p> <p>Section 9.5.5</p> <p>Table 9-23</p> <p>Chapter 13: Surface Water</p> <p>Table 13-15</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
28	28.0001	Private	Economics		The business case for Inland Rail will never break even financially, and is dependent on \$6.5 billion in taxpayer funded subsidies, including \$1 billion in subsidies for coal mining.	ARTC needs to make it carbon neutral or do not proceed with project.	<p>All assumptions relating to demand modelling, including the connection to the Port of Brisbane and intermodal terminals, and revenue are considered in the Inland Rail Programme Business Case (2015). As such the revised draft EIS reflects the information contained in the Business Case and does not include any new assumptions. In regards to coal, for the purposes of the economic benefit assessments contained within the Inland Rail EIS, freight movements from coal demand have been excluded. This approach is consistent with the cost benefit analysis completed for the ARTC Inland Rail Programme Business Case (2015). With specific reference to the cost benefit analysis results for the scenarios "No Western Line Upgrade", extracted from the Inland Rail Programme Business Case (2015) Chapter 9. Economic Analysis, where coal benefits are equal to zero (0).</p> <p>The reference design for the Project has an engineering design life of 100 years and it is based on industry best practice. ARTC commits to using the latest version of the IS rating tool or another equivalent tool to assess performance and aims to deliver performance that is equivalent to the 'Excellent' level as measured by the IS v1.2 rating tool and has developed an Environment and Sustainability Policy (ARTC, 2021a) which is provided in Appendix C: Corporate Policies. The sustainability commitments embedded into the Environment and Sustainability Policy (ARTC, 2021a) guide the Project's approach to sustainability and are supported by identified targets for Inland Rail Projects as part of the Program-wide Sustainability Strategy (Chapter 7: Sustainability, Section 7.4). This strategy will inform the Sustainability Management Plan that will be prepared by the Contractor for the Project and will guide the identification of Project-specific initiatives (Chapter 7: Sustainability, Section 7.5).</p>	<p>Chapter 7: Sustainability</p> <p>Section 7.4</p> <p>Section 7.5</p> <p>Appendix C: Corporate Policies</p>
28	28.0002	Private	Social Impact Assessment	Local business and industry procurement	The project will receive \$1 billion in subsidies for coal mining and will be a catalyst for increased thermal coal mining in South East Queensland. This is not safe for Australians.	If its not carbon neutral, IR should not proceed.	<p>ARTC is looking to create long-term value and deliver Inland Rail with the best possible outcomes for local communities, the economy and the natural environment. It should be noted, one 1,800 m double-stacked freight train can carry the same amount of freight as 110 B-Double trucks. By sharing the freight load, ARTC will reduce congestion on our roads and lower carbon emissions.</p>	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
28	28.0003	Private	Hazard and Risk		The project does not align with UN goal of collectively reducing emissions to prevent irreversible climate change. There is no benefit to the rail as the competition for the rail will be renewable electricity powered semitrailers.	If its not carbon neutral, do not proceed with construction.	The Australian Government has committed to reducing greenhouse gas emissions by 43% below 2005 levels by 2030, with the goal of achieving net zero emissions by 2050. This commitment was lodged with the United Nations Framework Convention on Climate Change secretariat on 16 June 2022. It is forecast that Inland Rail will increase the capacity of existing freight infrastructure through the use of double stacked trains that transport more freight. Additionally, rail is four times more fuel efficient than moving freight by road. Consequently, Inland Rail is expected to result in a partial modal-shift for the transportation of freight between Melbourne and Brisbane, with 200,000 fewer trucks predicted to travel this route per year by 2050 once the Project is operational. On this basis, Inland Rail is expected to facilitate a reduction in carbon emissions by the freight transportation industry by 750,000 tonnes per year from 2050. Transport emissions in Australia make up 19 per cent of our total national emissions. The road freight sector contributes 38 per cent of our total transport emissions. Therefore, Inland Rail is a Project that will support our national efforts to achieve the 2030 and 2050 emissions commitments that have been made by the Australian Government to the UN. Electric vehicle models are currently available that are suitable for urban freight distribution purposes. However, the vehicle fleet and charging infrastructure required to support the inter-state movement of freight via road is not available. Until this is the case, electric-powered freight movement via road will not be considered as a feasible alternative to Inland Rail. Justification for the Project is provided in Chapter 2: Project Rationale. Discussion of the emissions objectives for the Project is provided in Chapter 7: Sustainability, Section 7.5.3.	Chapter 2: Project Rationale Chapter 7: Sustainability Section 7.5.43
29	29.0001	Private	Surface Water	Directly impacted landowner	The overland water flow into the main dam on our property at Pittsworth will be stopped by the project.	Culverts in the correct position to catch the overland water flow.	The revised Reference Design includes culverts under the proposed rail embankment to maintain existing flow paths. At property 1RP7482 runoff generated from catchments bisected by the proposed Inland Rail embankment allows for two culvert locations to maintain cross drainage flows to the farm dam, namely C164.16 (consisting of 6 x 0.9 m diameter reinforced concrete pipes) and C164.29 (consisting of 22 x 1.2 m diameter reinforced concrete pipes). C164.16 drains a catchment area of 6.5 ha and C164.29 a catchment area of 166.4 ha (see Appendix B1: Design Drawings). Due to the prevalent soil conditions scour and erosion protection measures at the culvert outlets are proposed to be provided. During Detailed Design the culvert placement, sizes and detailed configuration will be confirmed. ARTC will continue to consult with directly affected landowners through the Detailed Design stage and make refinements as required. A potential impact assessment for the above culvert IDs can be found in Table 14-114 of Chapter 14: Flooding and Geomorphology. These culvert IDs can be found in relation to property 1RP7482 in Appendix B1: Design Drawings.	Chapter 14: Flooding and Geomorphology Table 14-114 Appendix B1: Design Drawings
29	29.0002	Private	Social Impact Assessment	Directly impacted landowner	Property access on the eastern side of the rail line is impacted as we need access with machinery and cattle.	Construct a culvert large enough to fit headers, trucks and the like through it.	ARTC acknowledges landowner concerns regarding the potential impact of the Project on property operations. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners through detailed design and construction to mitigate impacts, accommodate the continuation of current property management activities and access, where possible. Individual property treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required and if possible. Appendix X: Social Impact Assessment, Section 8.6.1 notes individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required. Appendix X: Social Impact Assessment, Section 8.6.1 notes that 'Impacts such as severance or loss of land area may affect the operations of these businesses and therefore farmers' or business owners' incomes, which will be considered as part of acquisition and compensation agreements'.	Appendix X: Social Impact Assessment Section 8.6.1 Chapter 24: Draft Outline Environmental Management Plan
29	29.0003	Private	Flora and Fauna	Koala	The rail line is proposed through Koala habitat. They will not be able to move between feeding trees because of the rail embankment.	Nil	Following the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS, Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Appendix P: Fauna Connectivity Strategy, identifies the location of proposed fauna crossing opportunities for species such as Koala. Opportunities to incorporate fauna infrastructure at other potential crossing points (e.g. large culverts) will be considered during the detail design process and in the Wildlife Connectivity Plan that will be prepared. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detail design process and incorporated where appropriate. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Transport Infrastructure Delivery manual (DTMR 2024). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, a range of different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy Section 5 and 7
29	29.0004	Private	Noise and Vibration	Operational rail noise	Noise will impact the township of Pittsworth.	Create a cutting on the eastern side of Pittsworth to form large embankments of both sides of the rail line to encapsulate the noise.	ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment and impact to sleep. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment as per the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration. As noted in Section 2.9.3 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. Regarding the proposed solution, as per the Interim Guideline - Operational Railway Noise and Vibration, reasonable and practicable mitigation measures should be implemented where noise criteria is exceeded. Creating a cutting to form large embankments to encapsulate noise is not reasonable or feasible due to factors such as impacts to hydrology, restriction of maintenance of the asset, and the volume of materials required to form the embankment. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design Stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
30	30.0001	Private	Noise and Vibration	Operational rail noise	Level Crossing operational noise with lights and bells, and horns near the Cabin at Woodspring Farm on Millmerran Road will ruin Woodspring Farm peace and quiet.	The other side of the road has only scrub and no houses or businesses. Please seriously consider the need to cross the road at this point as doing so will destroy the livelihood of this family.	As noted in Section 2.8 of the Chapter 2: Project Rationale, the alignment between Yelarbon to Gowrie was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.	Chapter 2: Project Rationale Section 2.8 Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
30	30.0002	Private	Social Impact Assessment	Operational rail noise	The rail noise will impact the accommodation business due to the hourly train horns, bells and warning lights from the level crossing near Woodspring Farm.	The other side of the road has only scrub and no houses or businesses. Please seriously consider the need to cross the road at this point as doing so will destroy the livelihood of this family.	ARTC has presented the results of the noise modelling and potential mitigation strategies in the revised draft EIS Chapter 16: Noise and Vibration (Section 16.8 and 16.10) and Appendix W: Noise and Vibration Assessment - Railway Operations (Sections 7, 8, 10, 16, Appendix D, and Appendix E). The results include sensitive receivers predicted to exceed noise guidelines during the operation of Inland Rail. ARTC notes the structures on this property are approximately 750 metres from the proposed level crossing and have not been identified as exceeding said guidelines. ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project. ARTC acknowledges the request for Millmerran-Inglewood Road crossing to be grade separated; however, investigations clearly show that a grade separation is not required at Millmerran-Inglewood Road (Chapter 20: Traffic, Transport and Access, Table 20-30 and Appendix AA: Traffic Impact Assessment, Section 2.2.3). The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, including sighting distances, gradients and approach angles (Appendix AA: Traffic Impact Assessment, Section 3.6.2). The Proponent will continue to engage with QR and the Department of Transport and Main Roads about potential connections and interfaces between the two networks, along with identifying relevant operational considerations (Table 2.1 of Appendix AA: Traffic Impact Assessment).	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 20: Traffic, Transport and Access Table 20-30 Appendix W: Noise and Vibration Assessment - Railway Operations Section 7 Section 8 Section 10 Section 16 Appendix D Appendix E Appendix AA: Traffic Impact Assessment Section 2.2.3 Section 3.6.2 Table 2.1
30	30.0003	Private	Social Impact Assessment	Local business and industry procurement	Local business uses the accommodation let to market private beef business to guests. The impact of the level crossing with warning lights, bells and hourly train horns will impact their guests numbers and beef sales. There is no need to cross the road at this location as the other side of the road has scrub with no houses or businesses.	The other side of the road has only scrub and no houses or businesses. Please seriously consider the need to cross the road at this point as doing so will destroy the livelihood of this family.	ARTC has presented the results of the noise modelling and potential mitigation strategies in the revised draft EIS Chapter 16: Noise and Vibration (Section 16.8 and 16.10) and Appendix W: Noise and Vibration Assessment - Railway Operations (Sections 7, 8, 10, 17, Appendix D, and Appendix E). The results include sensitive receivers predicted to exceed noise guidelines during the operation of Inland Rail. ARTC notes the structures on this property are approximately 750 metres from the proposed level crossing and have not been identified as exceeding said guidelines. ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project. ARTC acknowledges the request for Millmerran-Inglewood Road crossing to be grade separated; however, investigations clearly show that a grade separation is not required at Millmerran-Inglewood Road (Chapter 20: Traffic, Transport and Access, Table 20-30 and Appendix AA: Traffic Impact Assessment, Section 2.2.3). The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, including sighting distances, gradients and approach angles (Appendix AA: Traffic Impact Assessment, Section 3.6.2). The Proponent will continue to engage with QR and the Department of Transport and Main Roads about potential connections and interfaces between the two networks, along with identifying relevant operational considerations (Table 2.1 of Appendix AA: Traffic Impact Assessment).	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 20: Traffic, Transport and Access Table 20-30 Appendix AA: Traffic Impact Assessment Section 2.2.3 Section 3.6.2 Table 2.1 Appendix W: Noise and Vibration Assessment - Railway Operations Section 7 Section 8 Section 10 Section 16 Appendix D Appendix E

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
31	31.0001	Private	Traffic and Transport	Road safety	Concern about access to emergency services due to the planned level crossing at Inglewood Millmerran Road. The proposed plans are flawed and the ARTC should be required to cross the Inglewood Millmerran Road only once, in a grade separated crossing.	The best solution would be to cross the Inglewood Millmerran Road only once, but an alternative would be to build an overpass if this crossing is deemed absolutely necessary.	<p>The Border to Gowrie alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> ▶ Fewer farms affected mid-block ▶ Fewer farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7.6 Section 5.8 Section 5.9 Appendix BT
32	32.0001	Private	Traffic and Transport	Local business and industry procurement	Concern about the repeated crossing of Inglewood Millmerran Road and a level crossing on Inglewood Millmerran Road that will be dangerous and inconvenient. Concern that this will affect business, particularly submitter's daughter's camping and BnB business. People will not want to travel along this road and get stuck at the crossing.	The train line should stay in the forestry back from the houses on Millmerran road where it won't disrupt land used for farming or tourism, and cross the Millmerran Road only once (not 3 times). If the current crossing is deemed absolutely necessary it should be a grade separated crossing with adequate fencing to prevent pedestrian access.	<p>The Border to Gowrie alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> ▶ Fewer farms affected mid-block ▶ Fewer farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7.6 Section 5.8 Section 5.9 Appendix BT
32	32.0002	Private	Traffic and Transport	Modelling	The EIS says the wait time is just over 100 seconds but modelling is on a best case scenario and for 3600 m trains that are not the express super freighters this time could be considerably longer. It would make us choose a different route on our travels	The train line should stay in the forestry back from the houses on Millmerran road where it won't disrupt land used for farming or tourism, and cross the Millmerran Road only once (not 3 times). If the current crossing is deemed absolutely necessary it should be a grade separated crossing with adequate fencing to prevent pedestrian access.	<p>Revised draft EIS Chapter 5: Project Description (see Section 5.4.1) describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m train length is not part of the Project for which approval is being sought.</p> <p>Typically, existing rail operating services with design speeds slower than the 115 km/hr are also significantly shorter (generally <900 m) than the 1800 m long Inland Rail reference train. Shorter trains, even at lower speeds, are expected to take less time to traverse the level crossing.</p> <p>ARTC believe the modelling to be conservative, relative to all train types, up to 1,800 m long, that may use the network.</p>	Chapter 5: Project Description Section 5.4.1
32	32.0003	Private	Traffic and Transport	Level crossing	Concern about safety about school bus route and bus stopping in close proximity to the level crossing. Submitter would be extremely concerned for the safety of children, particularly if for some reason they were left alone at the bus stop with no adult supervision.	The train line should stay in the forestry back from the houses on Millmerran road where it won't disrupt land used for farming or tourism, and cross the Millmerran Road only once (not 3 times). If the current crossing is deemed absolutely necessary it should be a grade separated crossing with adequate fencing to prevent pedestrian access.	<p>Section 5.10.4 of the revised draft EIS Appendix AA: Traffic Impact Assessment details the impacts of the proposed rail alignment on school bus routes. The calculated disruption to the bus route due to the Millmerran-Inglewood Road level crossing is 1.69 minutes.</p> <p>The school bus route does not have designated bus stops, apart from the termini, prior to the Construction Works stage of the Project, and therefore suitable mitigation measures for the service, including the location of bus stops, will be identified in consultation with bus operators, local councils, impacted schools, Department of Education and the local community and be documented in the Traffic Management Plan to ensure school bus safety and understand any impacts to journey times, if any. These stakeholders will be consulted as part of the Project and made aware of the proposed changes to the school bus routes. The construction contractor will also be made aware of the presence of school bus routes and bus stops and their operational hours as part of the Project induction process.</p> <p>ARTC commits to maintaining existing bus stops during the Project construction. Where these require alteration, this will be agreed with the relevant service provider.</p> <p>The school bus routes, identified in Table 5.114, and the bus stops and pedestrian access to these stops must be maintained during construction of the development. Accordingly, if any temporary bus stop and pedestrian access arrangements or alternative bus routes are required when construction routes are finalised, the contractor must reach agreement on suitable arrangements with the DTMR TransLink Division (bus_stops@translink.com.au or on 3851 8700) and/or bus operator (whichever is relevant) prior to any construction or works commencing.</p> <p>During detailed design and construction the contractor will prepare a Road Use Management Plan and Traffic Management Plan, in accordance with DTMR and TRC guidelines and standards. These plans include regular assessment of road safety and road conditions to ensure safe access for all road users, including pedestrians. Appendix AA: Traffic Impact Assessment Section 5.2 provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p>	Appendix AA: Traffic Impact Assessment Section 5.2 Section 5.10.4 Table 5.114 Appendix BT
32	32.0004	Private	Noise and Vibration	Operational rail noise	Concern about taking the rail right through the town of Yelarbon. The impact of noise on all the houses in Yelarbon will be significant, especially at night,	In Yelarbon (and the rest of the rail line), any property owner who identifies as being annoyed by the rail line or unable to sleep within 6 months of operation should be offered property sound mitigation options.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 10 Section 11 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
32	32.0006	Private	Social Impact Assessment	Land acquisition/compensation	Yelarbon is a low socioeconomic area and ARTC needs to be mindful of the fact the residents are unlikely to be able to sell their property and move somewhere else.	ARTC needs to be mindful of the fact the residents are unlikely to be able to sell their property and move somewhere else and do their best to mitigate any negative effects they cause.	There is an existing rail line through Yelarbon. As described in Chapter 16: Noise and Vibration, Section 16.10, options for noise management are expected to include consideration of rail noise barriers (or similar) at Yelarbon. The review of noise barrier options for the Project are discussed in Section 16.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Section 16 of Appendix W discusses that for the other sensitive receptors where assessment criteria are predicted to be triggered, the reasonable and practicable noise mitigation options are expected to include architectural acoustic treatments to buildings to control rail noise within the internal environment of the building, and/or upgrades to existing property boundary fencing to improve screening of rail noise levels. This is expected to mitigate the potential for people to feel noise is impacting on their lifestyle to the extent that they wish to move.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 16 Section 16.4
33	33.0001	Private	General project opinion - positive		Submission notes that the train will be good for Inglewood, however raises various concerns.	Nil	ARTC note the positive feedback regarding Inglewood and are committed to continued engagement with the community as the Project progresses through the Detailed Design and Construction Works stages.	N/A
33	33.0002	Private	Traffic and Transport	Level crossing	I am concerned about the level crossings in close proximity to town, particularly at Inglewood Millmerran Road. Putting a level crossing on this road is dangerous. The site chosen is particularly dangerous because of the curves in the road, the trees growing right up to the side of the road, and the 100 km/hr speed limit which will mean the train and crossing will not be seen early and heavy vehicles might not have sufficient stopping time.	Please insist the train stays in the forestry on the western side of the Millmerran Road until it can cross at a site with good visibility away from the school bus route, with preferably only one crossing.	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations. The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millmerran and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared. The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution. ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stage to ensure that safety concerns and issues are addressed.	Appendix AA: Traffic Impact Assessment Section 3.7.6 Section 5.8 Section 5.9 Appendix BT
33	33.0003	Private	Social Impact Assessment	Workforce accommodation village	Concern about the 300 people living in the non-resident workforce accommodation on Inglewood Millmerran Road, and another 300 at Yelarbon where there is no doctor or hospital. This will impact on the medical services in Inglewood that cannot possibly be met by the current staff. Although our physicians and support staff in Inglewood are amazing, they simply cannot be expected to deal with nearly double the population, especially when many are in high risk construction roles. This has not been sufficiently dealt with by the draft EIS and it will put Inglewood residents at risk. The chosen mitigation option is to inform the QLD Health services of proposed population changes but we already have trouble attracting and retaining doctors.	Please insist that ARTC provide their own doctor and nurse based at one of the non-resident townships for the duration of the project.	The requirement for up to 900 workers to be based near Inglewood and Yelarbon is the peak requirement. Appendix X: Social Impact Assessment, Section 8.3.7 notes that the Project will provide access to paramedic services to reduce the demands on local health services. The Project has also committed to ensuring personnel are made aware of the need to attend to routine health issues whilst they are off roster, avoiding use of local GPs. As part of its planned quarterly consultation with Queensland Health during the Project's Construction Works stage, ARTC will monitor impact on local health services. If undue strain on local health services is identified to be attributable to the Project, ARTC will work with Queensland Health and the Darling Downs and West Moreton Primary Health Network (DD&WM PHN) to implement appropriate measures which may include: <ul style="list-style-type: none"> Funding additional health services and programs at non-resident accommodation facilities, which may include contract arrangements with local or remote health service providers Adjustment of policies regarding workforce behaviour (i.e. ensuring staff attend to routine health issues off roster as directed). Additionally, ARTC has implemented measures to minimise the spread of COVID-19 among its workforce and mitigate any associated impacts on local health services. Appendix X: Social Impact Assessment, Section 8.3.7 and Section 8.5.8 have been revised in this regard.	Appendix X: Social Impact Assessment Section 8.3.7 Section 8.5.8
34	34.0001	Private	Noise and Vibration	Operational rail noise	Concern that noise impacts, particularly to sleep and that the ARTC has discounted the importance of this by suggesting that not all people will react the same way to night-time noise. Submission notes that noise levels will be greater than those recommended in the WHO guidelines for sleep. Submission also notes the health impacts of such noise levels.	Unless suitable mitigation measures can bring the noise at my house down to below 49 decibels, I would prefer ARTC to acquire my property and I will move. ARTC must address how they will accomplish this prior to EIS acceptance.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations). The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dB Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq, night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 16. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17
34	34.0003	Private	Stakeholder engagement	Mitigation measures	Concern that there will not be enough time to respond and adequately address resident concerns, noting that work is due to start on South Kurumbul road in June (reference made to Chapter 18 page 94), whilst submissions are due in April. In the event that ARTC proves it can mitigate noise at my house to a liveable level, it does not provide enough time to apply property treatments before construction noise begins.	With respect to the start work date, the detailed design phase should be mandated a minimum of 3 months from EIS acceptance to allow for the proponent to meet its commitments under the EIS including allowing time for local businesses to prepare.	The construction timeframes provided in the draft EIS in early 2021 were accurate at the time of submitting the draft EIS to the Coordinator-General; however, the draft EIS notes they are subject to change because of the Project approval timeframe (as well as detailed design and procurement timeframes). Following a review of the draft EIS and stakeholder submissions in late 2021, the Office of the Coordinator-General requested additional information to be provided by ARTC. This has been undertaken and presented in a revised draft EIS, which incorporates additional noise assessments to better inform community stakeholders who are impacted by construction and operational noise. The revised draft EIS has been prepared and will undergo a public notification period, with sufficient time to allow impacted stakeholders to engage with ARTC about how noise may affect their property or business. Construction timeframes will be dependent on Project approval pathways. A revised construction timeframe will be determined through Detailed Design stage and communicated through ongoing engagement with communities. ARTC will work with affected individuals and businesses to prepare for impacts during construction and operation of the Project.	Appendix E: Consultation Report Section 7.2
34	34.0004	Private	Stakeholder engagement	Mitigation measures	In Chapter 5 sections 5.8.5.3 and 5.9 ARTC claim they will work with local businesses in the detailed design phase to provide briefings and communicate pre-qualification requirements and allow businesses to diversify and prepare to be relevant to the project. If work is to be done in June, there is not enough time for ARTC to meet these commitments.	With respect to the start work date, the detailed design phase should be mandated a minimum of three months from EIS acceptance to allow for the proponent to meet its commitments under the EIS including allowing time for local businesses to prepare.	As noted in Section 8 of Appendix X: Social Impact Assessment ARTC will prepare a Social Impact Management Plan (SIMP), which will include an action plan on local business and industry content. In addition, ARTC will comply with the Coordinator-General's conditions of approval regarding workforce participation and timing of installation of mitigation.	Appendix X: Social Impact Assessment Section 8
34	34.0005	Private	Traffic and Transport	Mitigation measures	Concern about damage to South Kurumbul road.	A commitment should be sought prior to approval that damage done to the road will be repaired immediately, especially in light of the need to bring over spec vehicles through Kurumbul.	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts with Section 5.6.4 highlighting mitigation measures for pavement damages to local government roads. It is noted that residents have raised concern regarding maintenance of South Kurumbul Road during construction works. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. In the case of South Kurumbul Road, EIS assumptions suggest this threshold will be reached in the early years of construction. As a result, ARTC has had ongoing discussions with the Road Manager, Goondwindi Regional Council (GRC) on pavement impact and road maintenance arrangements. These discussions will continue in detailed design with the contractor, ARTC and GRC. Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its service life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.	Appendix AA: Traffic Impact Assessment Section 5.6 Section 5.6.4
34	34.0006	Private	Traffic and Transport	Construction traffic	On page 74 of Chapter 18 of the draft EIS, in the Signalling and Communications section, the proponent suggests the project operation will be controlled by ATMS, a software package they have not developed yet. Submission raises safety concern about using an undeveloped, untested software.	The proponent needs to either use a different software package at inception or delay the construction of the rail until such time as they can demonstrate they can operate it safely. With respect to the software, ARTC needs to provide assurances and convince the Coordinator General that they have a safe, workable solution prior to the first train travelling on the greenfield sections of the track.	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.1 includes discussion of the use of the ATMS signalling system. The Project will be operated using Advanced Train Management System (ATMS), a communications-based safe working signalling system currently being developed by ARTC. The system will provide significantly upgraded capabilities to the rail safety by providing positive train control. Prior to being rolled out the ATMS safe working system will be required to demonstrate its safety and functionality to receive the accreditation by the Rail Safety Regulator. This will involve demonstrating its suitability on existing ARTC corridors prior to implementation to Inland Rail. Should the ATMS development schedule be delayed, an existing ARTC safe working system will be temporarily implemented.	Appendix AA: Traffic Impact Assessment Section 3.1
34	34.0007	Private	Social Impact Assessment	Land acquisition/compensation	Property value Section 15.8.1.3 says that any decrease in property values due to the rail will be diluted by other factors affecting value such as commodity prices and demand. Submission does not believe this is adequate rationale, and that the ARTC are attempting to exonerate themselves from real impact on property.	The ARTC refusing to buy property in advance except in case of hardship ensures the property owners are placed in a weak negotiating position. After acceptance of the EIS, and prior to construction, all impacted property owners should have the option to sell their properties at agreed market value, rather than waiting for compensation. ARTC needs to make a commitment to purchase entire properties of affected landowners at pre-project market value when they cannot effectively mitigate the adverse effects of noise.	Chapter 17: Social, Section 17.5 states that property values may be affected (not that impacts will be diluted) by a range of factors both related to and unrelated to the Project. Property acquisitions will be conducted by Department of Transport and Main Roads as the acquiring authority in accordance with the <i>Acquisition of Land Act 1967</i> (Qld) (AL Act). Assessment of compensation is undertaken in accordance with Section 20 of the AL Act. Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance.	Chapter 17: Social Section 17.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
34	34.0008	Private	Traffic and Transport	Road safety	Concern about waiting times and impacts to safety and emergency services due to proposed level crossings. Submission notes the following: - The Office of the National Rail Safety Regulator states in its level crossings policy that no new active crossings should be built, and that new projects in brownfield rail corridors should upgrade active crossings to grade separated crossings for public safety. - The proposed route has no less than 4 level crossings within 10 km of my house. This is inappropriate and could present a long wait for emergency services, especially in the event that a train slowing for the crossing loop causes a wait and then the train travelling the other direction compounds the wait or causes a wait at one of the adjacent crossings.	For level crossings ARTC needs to commit to grade separation wherever technically possible over public roads. This is a nation building exercise and the capital expense should not factor into the safety calculations.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stage to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
34	34.0009	Private	Traffic and Transport	Level crossing	Concern about waiting times at level crossings. Submission would like to know wait times, noting that there would be 3600 m long trains slowing for the crossing loop and meeting a 3600 m passing train at the same or a nearby crossing. The modelling is all done on 1800 m trains travelling at top speed which does not give a valid answer.	Nil	The proposal in Chapter 5: Project Description, Section 5.4.1 is for the operation of double-stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains are not part of the Project for which approval is being sought. <p>Appendix AA: Traffic Impact Assessment, Section 5.9.3 discusses analysis assumptions at lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (see Section 2.4). This section also details how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, and train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states that vehicles' wait time at passive crossings were calculated using the <i>Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings</i>. The estimated wait time is considered a function of: <ul style="list-style-type: none"> The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate The time it takes the train to cross the level crossing Design vehicle consisting of a B-double for input parameters. Train speed and train clearance times, calculations and assumptions for the level crossing are as follows: <ul style="list-style-type: none"> Train clearance times were calculated based on an assumed maximum train speed of 115 km/h Calculation of the freight train acceleration rate Distance of the level crossing from passing loops Distance required to accelerate to maximum turnout speed (50 km/h) Distance travelled while at constant maximum turnout speed Distance required to accelerate to maximum speed after whole train has passed turnout Total distance required to reach maximum speed for train starting from turnout Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). The wait times determined for each individual level crossing were calculated based on: <ul style="list-style-type: none"> Level crossing specific operating speeds which is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops Train length Summarised traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons) A sensitivity test based on a maximum train speed of 60 km/h (as opposed to up to 115km/h) to highlight the variability in closure times. <p>A typical active level crossing sequence for boom gate down time is, after 11 seconds (±1) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (±2-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or road trains), the delay before the booms commence lowering can be increased by a further 5 seconds-16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished.</p></p>	Chapter 5: Project Description Section 5.4.1 Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.3 Section 5.9.1
34	34.0010	Private	Social Impact Assessment	Directly impacted landowner	Concern about impacts to rent due to loss of amenity and noise impact.	ARTC should be required to build a noise mitigation wall, at least as high as the highest locomotive exhaust stacks. The conceptual wall only reaches as far as the silos on the east and the town limit on the west. When the rest stop is reinstated, it should have a gated children's playground, perhaps with information and facilities that encourage learning about and playing with acoustics and a train theme to try to turn a negative into a positive and encourage travellers to stop. As the noise mitigation wall will presumably block the view of the silo art, the wall should have a complementary painting.	The submitter's property is located on Georges Lane Kurumbul in close proximity to the rail alignment and states that their house is within 100 metres of an active level crossing. The submitter also identifies as the owner of an investment property in Yelarbon. <p>Appendix X: Social Impact Assessment, Section 7.1.4 notes with respect to noise near crossings, analysis of the predicted noise levels determined that where sensitive receptors are located within approximately 200 metres of each level crossing or train horn location (100 metres either side of level crossings), noise from the crossing alarm bells and train horns would potentially contribute to noise levels above ARTC's noise management levels, and noise mitigation measures may need to be investigated for receptors near some of the crossings.</p> <p>Appendix X: Social Impact Assessment, Section 7.1.5 has been updated to note: The operational railway noise technical report (Appendix W: Noise and Vibration Assessment - Railway Operations) provided as part of the revised draft EIS proposed a concept noise barrier in Yelarbon to mitigate railway noise impacts on homes and businesses. Depending on its location, height, materials and length, a noise wall could affect views to the Yelarbon silo art (which is a recent enhancement to Yelarbon's character, and a tourism attraction) from the viewing platform on the other side of the rail line. Noise mitigation impacts will need to be balanced against potential impacts on views to the silos. Detailed design for a noise wall in Yelarbon will involve consultation with Yelarbon stakeholders. The objective will be to preserve visibility of the silos. If this would compromise noise mitigation, alternative mitigations for discussion with the Yelarbon community may include architectural treatment to sensitive receptors that would experience noise impacts, or moving the viewing platform.</p>	Appendix X: Social Impact Assessment Section 7.1.5 Section 7.1.6
34	34.0011	Private	Landscape and Visual Amenity		In discussing impacts to rent, submission raises concern about loss of amenity due to project.	ARTC should be required to build a noise mitigation wall, at least as high as the highest locomotive exhaust stacks. The conceptual wall only reaches as far as the silos on the east and the town limit on the west. When the rest stop is reinstated, it should have a gated children's playground, perhaps with information and facilities that encourage learning about and playing with acoustics and a train theme to try to turn a negative into a positive and encourage travellers to stop. As the noise mitigation wall will presumably block the view of the silo art, the wall should have a complementary painting.	The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3: Yelarbon rest area has been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. <p>An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area. As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Assessment, Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. In addition, an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers.</p> <p>ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos were affected by noise walls, ARTC would facilitate provision of mitigation measures e.g. a complementary mural on the noise wall and/or roadside landscaping, in consultation with the Yelarbon community and Goondiwindi Shire Council.</p>	Appendix K: Landscape and Visual Assessment Section 8.2.4 Section 9.1.4
34	34.0012	Private	Economics	Mitigation measures	Submission notes that the project is a nation building exercise and the capital expense should not factor into the safety calculations. ARTC is wholly government owned and this is an opportunity to stimulate the QLD economy post covid.	Nil	Response noted. The reference design for the Project has an engineering design life of 100 years and it is based on industry best practice. The construction and operation of the Inland Rail Project is a key consideration for ARTC and the Inland Rail Program. Hazards and risks for the Border to Gowrie Project have been addressed in Chapter 21: Hazard and Risk in the revised draft EIS. ARTC's Safety Policy (Chapter 21: Hazard and Risk, Section 21.2.1) applies across all aspects of the Inland Rail Program and a copy of the policy is located in EIS Appendix C: Corporate policies and is available on line via the following link: artc.com.au/work/contractors/safety-policy .	Chapter 21: Hazard and Risk Appendix C: Corporate policies Safety Policy
35	35.0002	Private	Noise and Vibration	Modelling	Concern about inconsistencies in noise modelling. In the draft EIS, the business case says 14 trains a day are forecast in 2026 and 20-25 trains daily in 2040 (Chapter 1 Table 1.2), the Chapter on noise modelling says in Table 14.5 up to 19 trains per 24 hours in 2026 and 24 trains in 2040. Appendix O Table 2.4 says peak trains in 2040 will be 168 per week. Different figures for typical and peak are acceptable when clearly marked, but even where this is the case the forecast changes from Section to section.	Withdraw the EIS until it is internally consistent. There should only be one forecast for expected rail traffic used. The Co-ordinator general should insist the proponent resubmit a draft EIS that is internally consistent.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). As discussed in Section 6.2 of Appendix W: Noise and Vibration Assessment – Railway Operations, the Interim Guideline requires noise and vibration to be assessed based on the 'typical worst-case (e.g. typical maximum operating conditions)'. For Inland Rail this is the 'peak' daily train services, which account for the maximum forecast operations including the seasonal agricultural services. The adopted peak train numbers are the best available information at the time of assessment and considered representative of typical worst case operating conditions. In addition, the operational noise assessment only considers whole trains, so the train movements are rounded to the nearest integer. The business case was based on typical or average train movements. <p>Table 16-4 of Chapter 16: Noise and Vibration and Table 6-1 of Appendix W: Noise and Vibration Assessment – Railway Operations are consistent with Appendix R: Air Quality Technical Report Table 2.4 presenting a worst-case operating scenario to ensure impacts are conservatively predicted.</p>	Chapter 16: Noise and Vibration Table 16-4 Appendix R: Air Quality Technical Report Table 2.4 Appendix W: Noise and Vibration Assessment – Railway Operations Table 6-1
35	35.0003	Private	Stakeholder engagement		ARTC have not engaged meaningfully with the community. ARTC using stakeholder consultation activities to inform and browbeat both historically and on the current project include lack of consultation in Euroa. Further, the ACCC found that ARTC did not supply transparency to stakeholders in the 2018 Interstate Access Undertaking	Provide actual mitigations solutions in the social impact monitoring plan beyond informing stakeholders, providing clear communication and alerting emergency and social services of activities; the onus should not be on council and community groups	Appendix E: Consultation Report details the breadth of community engagement which supported the draft EIS and revised draft EIS development. Section 5.12 of Appendix E: Consultation Report details the engagement undertaken to inform the Social Impact Assessment (SIA) and Social Impact Management Plan (SIMP). This included engagement through one-on-one landowner meetings, Community Consultative Committees, interactive mapping (Social Pinpoint), fact sheets, website, social media, newsletters, community information sessions and the 1800 free call phone number. <p>ARTC will continue to engage with stakeholders, including key emergency and social services in the region, through the finalisation of the revised draft EIS and development of detailed design. Appendix X: Social Impact Assessment, Section 8 outlines the Project's Social Impact Management Plan (SIMP), which describes how the Project will engage with communities and stakeholders including emergency services, to mitigate social impacts, enhance Project benefits for the SIA study area, and monitor and report on the delivery and effectiveness of management measures.</p>	Appendix X: Social Impact Assessment Section 8 Appendix E: Consultation Report Section 5.12
35	35.0004	Private	Stakeholder engagement		ARTC have not engaged meaningfully with the community. Submission notes that ARTC are patronising and paying lip service to: <ul style="list-style-type: none"> the Goondiwindi Regional Council and Minister for Agriculture David Littleproud when they suggested an alternate route the communities of Coonamble, Warrumbungle, Gilgandra and Walgett 	Provide actual mitigation solutions in the social impact monitoring plan beyond informing stakeholders, providing clear communication and alerting emergency and social services of activities; the onus should not be on council and community groups	Appendix E: Consultation Report, Section 5.12 details the community engagement undertaken to inform the Social Impact Assessment (SIA) and Social Impact Management Plan (SIMP). This included engagement through one-on-one landowner meetings, Community Consultative Committees, interactive mapping (Social Pinpoint), fact sheets, website, social media, newsletters, community information sessions and the 1800 freecall phone number. <p>As noted in Appendix X: Social Impact Assessment (Section 8.5.8), ARTC will continue to engage with stakeholders, including key emergency and social services in the region, through the finalisation of the revised draft EIS and development of detailed design.</p>	Appendix E: Consultation Report Section 5.12 Appendix X: Social Impact Assessment Section 8.5.8

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
35	35.0005	Private	Stakeholder engagement	Flood immunity	ARTC have not engaged meaningfully with the community. Outright rejecting the local knowledge of residents on the Condamine floodplain about historical flood heights.	Provide actual mitigation solutions in the social impact monitoring plan beyond informing stakeholders, providing clear communication and alerting emergency and social services of activities; the onus should not be on council and community groups	<p>Appendix E: Consultation Report, Section 5.3 details the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>Community engagement has influenced the development of the reference design. The Condamine floodplain crossing design has been updated to incorporate community feedback and has been reviewed following recent major flood events. Community feedback, along with input from the Independent International Panel of Experts for Flood Studies has resulted in the following key changes:</p> <ul style="list-style-type: none"> extending the proposed bridge over the North Branch by approximately 250 m north moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. <p>As noted in Appendix T1: Hydrology and Flooding (Section 14.6, Section 5.5.2-18.6.2, Section 22, Table 24.1), ARTC will continue to engage with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered in the EIS and revised reference design. Outcomes of this consultation and revised local catchment modelling will be incorporated into the final EIS.</p> <p>Consultation with impacted stakeholders will continue through detailed design of the Project to ensure that alterations to the design and its impacts are communicated back to landowners. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event (Appendix T1: Hydrology and Flooding, Section 5.5.2-18.6.2, Section 22, Table 24.1), in line with recommendations from the Independent International Panel of Experts for Flood Studies.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.3</p> <p>Appendix T1: Hydrology and Flooding</p> <p>Section 5.6-18.6</p> <p>Section 18.6.2</p> <p>Section 22</p> <p>Table 24.1</p>
35	35.0006	Private	Stakeholder engagement		ARTC have not engaged meaningfully with the community. ARTC refuse to release costings on specific projects as commercial in confidence but using the excuse that community suggested options are too expensive to countenance	Provide actual mitigations solutions in the social impact monitoring plan beyond informing stakeholders, providing clear communication and alerting emergency and social services of activities; the onus should not be on council and community groups	<p>In line with industry practice, ARTC will maintain commercial-in-confidence arrangements during the Detailed Design and Construction Works stages. ARTC has a robust local and indigenous employment and business participation commitment, as outlined in Appendix X: Social Impact Assessment, Section 8.3.3 and Section 8.6.3.</p> <p>The Project will underpin its planning with the minimum participation targets set by related Commonwealth and Queensland policy. The Project will drive outcomes toward aspirational or incentivised targets with Contractors to exceed these minimum benchmarks. The Project's contractual negotiations will remain commercial-in-confidence.</p> <p>ARTC will continue to engage with local businesses and employers during the Detailed Design, Construction Works and Operations stages, and notes that a detailed Social Impact Plan (SIMP) will be developed, including action plans to address:</p> <ul style="list-style-type: none"> community and stakeholder engagement workforce management housing and accommodation health and community wellbeing local business and industry content. <p>The SIMP will be subject to independent review and ongoing performance monitoring.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 8.3.3</p> <p>Section 8.6.3</p>
35	35.0007	Private	Stakeholder engagement		ARTC have not engaged meaningfully with the community. ARTC are running community engagement meetings in the Inner Darling Downs without allowing question time	Provide actual mitigations solutions in the social impact monitoring plan beyond informing stakeholders, providing clear communication and alerting emergency and social services of activities; the onus should not be on council and community groups	<p>ARTC has engaged widely with the community, involving many town halls, CCC meetings, comprehensive engagement programs.</p> <p>Community Consultative Committee meetings are run by an independent chair. Committee members have the opportunity to nominate agenda items for discussion at the meetings. In accordance with the committee charter, ARTC provides updates on the various components of the Project, which can be technical in nature. ARTC prepares detailed minutes of the meetings and slides, which are available on the Inland Rail website following endorsement by the members, and, where requested, provides the slide packs to members for their further consideration. Committee members also have the opportunity to ask questions and seek clarification on any points during the meeting or via phone or email after the meeting.</p> <p>Findings from the Project's Social Impact Assessment (SIA) and focus areas for the Project's Social Impact Management Plan (SIMP) are presented in the revised draft EIS Chapter 17: Social and Appendix X: Social Impact Assessment. The SIMP outlines objectives, outcomes and measures for mitigation of social impacts, and measures intended to enhance Project benefits and opportunities. Section 24.1 of Chapter 24: Draft Outline Environmental Management Plan presents and describes the Project Environmental and Social Management Framework.</p>	<p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Section 24.1</p> <p>Appendix E: Consultation Report</p> <p>Appendix X: Social Impact Assessment</p>
35	35.0008	Private	Noise and Vibration	Baseline/background sampling	Concern about noise mapping and selection of monitoring sites, resulting in understated impacts. Submission notes that in Chapter 14 page 12, the measuring sites for background noise are mapped. From 11 monitoring sites, there are no noise monitoring sites on the Millmerran Road, despite it making up over a quarter of the distance. Most sites seem to have been chosen on busy national highways, presumably to understate the impact of noise at quiet rural properties. The methodology used claims to account for train horns at active level crossings but also states that the top 5% of sound events are discarded during L _{max} and LA _{eq} calculations. This is to prevent statistical outliers from overstating noise impacts, in the event of very loud infrequent noises, such as blasting at a construction development. This would be appropriate in the majority of developments however when the loudest noises are regular, planned train horns to omit their impact from noise calculations on a statistical basis is misleading. The L _{max} should be the level above which 95% of train passbys will not fall. This will not be the case at active level crossings.	Provide noise and crossing wait modelling on typical trains and not best case scenarios. Verify sound model adjacent to active crossings	<p>Background noise monitoring was undertaken at 29 representative locations along the Project alignment. Background noise monitoring is the LA90 - the noise level that is exceeded 90% of the time. The noise surveys quantified and characterised the local sources of noise to define the baseline environment prior to the construction and operation of the Project (Chapter 16: Noise and Vibration, Section 16.5.2 and Section 5.4 of Appendix V: Noise and Vibration - Construction Noise and Road Traffic). The survey locations provide a representative measure of existing noise for the various sensitive receptors located along the Project alignment. The background noise monitoring informs the construction noise assessment criteria and the most stringent applicable construction noise criteria were adopted across the Project as a result of the low existing background noise levels measured at all monitoring locations. Additional noise measurements would not have lowered the adopted noise criteria in the Millmerran Road area.</p> <p>ARTC notes that separate criteria are provided for construction noise and operational noise. For operational noise: 5% of events are excluded when assessing L_{max} only, no rail passbys are excluded when assessing L_{max}. Noise and vibration impacts from blasting are assessed separately. If blasting is deemed necessary for construction, appropriately trained and licenced shot firers will be engaged to undertake the blasting activities in accordance with Queensland's regulatory requirements and the limits (for air blast over-pressure and ground vibration) provided in Department of Transport and Main Roads (DTMR) Code of Practice (CoP) Volume 2 (Chapter 16: Noise and Vibration, Section 16.6).</p> <p>The operational noise and vibration modelling has been revised in accordance with the DTMR's Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.</p> <p>At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5.2</p> <p>Section 16.6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 6.3</p>
35	35.0009	Private	Noise and Vibration	Modelling	Concern about noise modelling undertaken. Submission notes: Table B5 in Appendix T states that the monitored 95th percentile L _{max} noise levels are less sensitive to outliers than the arithmetically averaged SEM noise levels. Consequently, the noise model, which adopted a consistent L _{max} noise emission, validates better to the 95th percentile L _{max} than the SEM. None of the monitoring sites included active level crossings so the model is verified for passby only but not for a situation with a predicted horn noise well above the passby noise, and not for a site where the noise of cars and heavy vehicles must stop and restart.	Provide noise and crossing wait modelling on typical trains and not best case scenarios. Verify sound model adjacent to active crossings	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.</p> <p>In level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources.</p> <p>Operational noise mitigation measures are recommended in Chapter 16 Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 6.3</p> <p>Section 17</p>
35	35.0010	Private	Noise and Vibration	Mitigation measures	Concern that ARTC has not considered many of the noises associated with rail operation when calculating which properties require noise mitigation. In particular, noises associated with rail operation around curves and adjacent to crossing loops and active crossings. The submission makes reference to Part 16 of the Queensland Government Noise Measurement Manual (8) and AS1055:2018.	Provide noise and crossing wait modelling on typical trains and not best case scenarios. Verify sound model adjacent to active crossings	<p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4.</p> <p>The Project's designs do not include tight-radius curves (radius < 500 m), therefore the noise modelling did not apply noise emission correction factors for curving noise emissions (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 12.4).</p> <p>At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3.8). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. The passive level crossings only included the train horns as noise sources. Train movements within the crossing loops are discussed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3.9.</p> <p>Operational noise mitigation measures are recommended in Chapter 16 Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 12.4</p> <p>Section 17</p>
35	35.0011	Private	Traffic and Transport		ARTC says in Chapter 18 that Inland Rail coordinated by ATMS, a software package that has not been built yet.	ARTC should need to provide details of what will be done in the meantime, when the software will be ready and how it is being funded.	<p>Appendix AA: Traffic Impact Assessment, Section 3.1 includes discussion of the use of the ATMS signalling system.</p> <p>The Project will be operated using Advanced Train Management System (ATMS), a communications-based safe working signalling system currently being developed by ARTC. The system will provide significantly upgraded capabilities to the rail safety by providing positive train control.</p> <p>Prior to being rolled out, the ATMS safe working system will be required to demonstrate its safety and functionality to receive the accreditation by the Rail Safety Regulator. This will involve demonstrating its suitability on existing ARTC corridors prior to implementation to Inland Rail. Should the ATMS development schedule be delayed, an existing ARTC safe working system will be temporarily implemented.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.1</p>
35	35.0012	Private	Flooding - Condamine River	Proponent commitments	In Chapter D, Section 3.5.23.2 the draft EIS claims that approval is not required under the RPI Act however as the current alignment proposes to drastically alter overground water movement along 16 km of the Condamine floodplain, it could be argued that this project causes widespread and irreversible impact to strategic cropping land by essentially creating a long dam wall and approval under the Regional Planning Interests Act should be required.	Get an RPI approval or don't build across the Condamine floodplain	<p>As the Project is not a resource activity or a regulated activity under the RPI Act, the Act does not apply (Chapter 3: Legislation and Project Approvals, Section 3.4.26). However, the potential impact on areas of regional interest has been undertaken and included within Chapter 8: Land Use and Tenure, Section 8.5.1.</p>	<p>Chapter 3: Legislation and Project Approvals Process</p> <p>Section 3.4.26</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p>
35	35.0013	Private	Traffic and Transport	Level crossing	Concern that new crossings at Purcell Rd and Inglewood Millmerran Road have not been considered in accordance with the ARTC corporate policy. This is clearly not the case when grade separated crossings are possible and desired by the communities for reasons of safety and convenience (see Appendix C Table 4.11).	The Co-ordinator general should require ARTC to build grade separated crossings on all state routes and minor arterial roads at a minimum.	<p>ARTC recognises the complex decision-making process surrounding public road– rail interfaces. Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used to ensure a consistent safety-based risk approach to determine crossing treatments.</p> <p>At Purcell Road, ARTC is proposing to update the Project design as a result of design optimisation and incorporating stakeholder feedback in relation to the preferred location of the road– rail interface. The proposed updated design now includes:</p> <ul style="list-style-type: none"> Rail over road grade separation at Athol School Road, rather than a closure as previously proposed in the draft EIS Purcell Road closure at the rail interface, rather than a passive level crossing as previously proposed in the draft EIS Proposed new road connecting Purcell Road and Athol School Road with an intersection. <p>ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community including:</p> <ul style="list-style-type: none"> Removal of level crossing, increasing safety benefits for the community Diversion of through traffic to the recently upgraded Athol School Road and Gore Highway intersection, which is preferred by TRC and DTMR road managers over the Purcell Road and Gore Highway intersection More direct route to and from Toowoomba via Athol School Road. <p>Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran–Inglewood Road active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran– Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran– Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.6</p> <p>Section 3.7</p> <p>Section 3.7.6</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
35	35.0014	Private	Traffic and Transport	Modelling	ARTC justifies decision for new crossing at Purcell Rd and Inglewood Millmerran Road by virtue of ALCAM scores claiming these sites are safe. However the ALCAM website identifies it as an assessment tool used to identify key potential risks at level crossings and to assist in the prioritisation of crossings for upgrades. The risk model is used to support a decision making process for both road and pedestrian level crossings and to help determine the most cost effective treatments. It is not intended to warrant safety during the construction phase of infrastructure building and the website says as much.	The Co-ordinator general should require ARTC to build grade separated crossings on all state routes and minor arterial roads at a minimum.	<p>At Purcell Road, ARTC is proposing to update the Project design as a result of design optimisation and incorporating stakeholder feedback in relation to the preferred location of the road rail interface. The proposed updated design now includes a road diversion and grade separation at Athol School Road.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by State and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road–rail interface treatments. This overview provides the Coordinator-General, DTMR and the community with further transparency on the design process undertaken and outlines that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road-rail interface locations throughout the Project.</p> <p>The Inland Rail scope for Millmerran-Inglewood Road is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors such as sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>The two northern crossings of Millmerran-Inglewood Road (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation based on the detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future-proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate one train every two hours on average when Inland Rail is first operational and increasing to around one train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran-Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than two vehicles before the crossing is cleared.</p> <p>The Inland Rail scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9 Appendix BT
35	35.0015	Private	Economics		Concern that more money will need to be handed out to upgrade dangerous crossings. When the business case relies upon the certainty of transit time by avoiding traffic incidents on the coastal rail route (Draft EIS Section 2.5.1.3) it doesn't make economic sense to design a system with so many dangerous crossings. Traffic at the Purcell Road and Inglewood Millmerran Road crossings are only used by local traffic and so the reduction in long haul truck movements brought about by Inland Rail will do nothing to mitigate the risks at these crossings.	Use money from the post Covid Recovery stimulus package earmarked for Inland Rail to just make the Inland Rail right the first time around, instead of shifting the expense of appropriate grade separated crossings to future generations just to get this project completed cheaply at any social cost.	<p>ARTC recognises the complex decision-making process surrounding public road–rail interfaces and as such, will apply a consistent methodology to develop road–rail interface treatments across this Inland Rail Program, as described in the Public Level Crossing Treatment Methodology – Major Projects.</p> <p>The most southern crossing of Millmerran-Inglewood Road, at Inglewood, did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR-audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope, as the cost to grade separate is grossly disproportionate to the benefits. The Inland Rail scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>In the Athol area, ARTC is proposing to update the Project design as a result of design optimisation and incorporating stakeholder feedback in relation to the preferred location of the road–rail interface. Extensive engagement with the local community and road managers has continued throughout the EIS process as ARTC continue to optimise the design of the vertical rail alignment and the road–rail interfaces along the Project alignment. The proposed updated design now includes:</p> <ul style="list-style-type: none"> ▶ Rail over road grade separation at Athol School Road, rather than as a closure as previously proposed in the draft EIS ▶ Purcell Road closure at the rail interface, rather than a passive level crossing as previously proposed in the draft EIS ▶ A proposed new road connecting Purcell Road and Athol School Road with an intersection. <p>ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community including:</p> <ul style="list-style-type: none"> ▶ Removal of a level crossing and increasing safety benefits for the community. ▶ Diversion of through traffic to the recently upgraded Athol School Road and Gore Highway intersection, which is preferred by TRC and DTMR road managers over the Purcell Road and Gore Highway intersection ▶ A more direct route to and from Toowoomba via Athol School Road. <p>As described in Section 18.6 of Chapter 18: Economics, both the ONRSR Policy and the <i>Queensland Level Crossing Safety Strategy 2012-2021</i> (QLCSS) focus on avoiding, where possible, the installation of new level crossings. The ONRSR Policy acknowledges that for lower-risk level crossings, operators may be able to demonstrate that alternative controls minimise the risk to safety, so far as is reasonably practicable (SFAIRP), as defined in the ONRSR Guideline (ONRSR, 2016b). The reference design has been developed to limit the number of new level crossings; however, there are instances where the road-rail interface treatment assessment has concluded that the risk to safety SFAIRP can be achieved through the provision of level crossings in lower risk locations.</p> <p>Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Border to Gowrie alignment. ARTC will continue to work collaboratively with road managers as detailed design progresses regarding the proposed road rail interface solutions. For more information, please see the Inland Rail Level Crossing Factsheet at: inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Chapter 18: Economics Section 18.6 Section 18.11 Chapter 20: Traffic, Transport and Access Section 20.6
35	35.0016	Private	Traffic and Transport	Level crossing	Concern about the introduction of dangerous crossings. Traffic at the Purcell Road and Inglewood Millmerran Road crossings are only used by local traffic and so the reduction in long haul truck movements brought about by Inland Rail will do nothing to mitigate the risks at these crossings.	Abide by the multiple sets of guidelines that strongly discourage level crossings	<p>At Purcell Road, ARTC is proposing to update the Project design as a result of design optimisation and incorporating stakeholder feedback in relation to the preferred location of the road rail interface. The proposed updated design now includes a road diversion and grade separation at Athol School Road.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by State and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road–rail interface treatments. This overview provides the Coordinator-General, DTMR and the community with further transparency on the design process undertaken and outlines that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road-rail interface locations throughout the Project.</p> <p>The Inland Rail scope for Millmerran-Inglewood Road is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors such as sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Appendix BT
35	35.0017	Private	Social Impact Assessment	Operational traffic	Studies have found that when technical transport models, or "predict- and-provide" models such as ARTC is using in this reference design as used, that social impacts are overlooked and there is an overemphasis on economic and engineering considerations. The submission includes links to various studies to support this claim.	Nil	<p>The reference provided by the submitter refers to urban rail projects and states that quantitative design approaches often ignore wider social contexts. Appendix X: Social Impact Assessment includes a comprehensive social baseline as the social context for assessment of impacts and benefits.</p> <p>The Project's business case, alignment and design have been influenced by business case considerations and a route selection process extending over many years.</p> <p>Appendix X: Social Impact Assessment has examined the existing social context (Section 5) and evaluated the significance of social impacts (Section 7) in accordance with the revised draft EIS Terms of Reference and the Social Impact Assessment guideline.</p>	Appendix X: Social Impact Assessment Section 5 Section 7
36	36.0001	Private	Traffic and Transport	Level crossing	As an SES member, the submitter is concerned about the number of level crossings planned for B2G. Submitter is concerned about the impact of levels crossings on the time it takes to respond to incidents (for example when the SES services are required to direct traffic in emergencies). Submitter notes that timely traffic control is crucial in preventing small incidents from escalating. Questioned why Queensland is not following the same approach as Victoria by replacing level crossings with grade separations.	ARTC should be required to put grade separated crossings on all public roads, and upgrade all existing crossings to grade separation wherever technically possible, in light of the public safety risk from more frequent, bigger, faster trains.	<p>ARTC recognises the complex decision-making process surrounding public road–rail interfaces. Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road–rail interface locations and the approach used to ensure a consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road–rail interfaces across the Project and the methodology followed in the development of road–rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides the Coordinator-General, DTMR and the community with further transparency on the design process undertaken and highlights that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road–rail interface locations throughout the Project. Many road–rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed by the Public Level Crossing Treatment methodology.</p> <p>In January 2023, the Office of the Road Safety Regulator (ONRSR) undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focusing on the public level crossings in the Border to Gowrie section. The key findings included that Inland Rail demonstrated a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process had fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road–rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solutions. For more information, please also refer to Inland Rail Level Crossing Factsheet at: inlandrail.artc.com.au/level-crossings-fact-sheet</p> <p>As part of the ongoing process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operation and are supportive of the Project's proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies and emergency services will continue through the detailed design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
36	36.0002	Private	Social Impact Assessment		Concerned raised around the impact of construction on the long term residents of Inglewood. Concerned that the high income of ARTC contractors/non resident workers will:	The principal contractor should be required to collaborate with Goondiwindi and Toowoomba Chambers of Commerce to formulate a fair enterprise bargaining agreement that employees can be employed under. This should be required to have behavioural standards for the non resident workforce both on and off the job.	<p>Appendix X: Social Impact Assessment, Section 8.4.4, includes the commitment to develop an Accommodation Management Plan (AMP) with the key outcome being avoidance of impacts on the local housing market. More detail regarding the AMP scope has been added to this section.</p> <p>The Project includes provision of three non-resident workforce accommodation facilities to minimise the potential for impacts on rental housing access (Appendix X: Social Impact Assessment, Section 6.1.6). Workforce accommodation facilities will be self-contained, i. e. meals and other services will be provided within the facilities, so demand-led inflation resulting from expenditure on services and products in town is not expected to be significant. There is no evidence to suggest that e.g. food prices or fuel prices will increase as the result of having an accommodation facility in the area.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.4, notes the possibility that the Project could compete with other businesses for personnel. Some of the types of trades required (e.g. welders, concreters) may also be in demand by local residents, however many of the trades required (e.g. machine operators, drillers, crane operators) are specific to major infrastructure projects.</p> <p>ARTC has established the Inland Rail Skills Academy to increase the skills and capacity of the local workforce to participate in construction employment (Appendix X: Social Impact Assessment, Section 8.3.2). Additionally, ARTC has partnered with Goondiwindi Regional Council to support a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment has been updated in this regard.</p> <p>ARTC is unable to collaborate on employment agreements with other parties. However, Appendix X: Social Impact Assessment, Section 8.3.7 notes that the Project has committed to monitoring Inland Rail projects' workforce ramp-up and the proportions of local and non-local personnel, and consulting with local Councils and Chambers of Commerce regarding any pressures they identify on local labour availability.</p> <p>If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the Contractor to refine the Project's recruitment and training strategies.</p>	Appendix X: Social Impact Assessment Section 8.3.2 Section 8.3.4 Section 8.3.7 Section 8.4.4
36	36.0003	Private	General project opinion - positive		Generally supportive of the project but has some reservations.	Nil	ARTC note the general support of the Project.	N/A
37	37.0001	Private	Traffic and Transport	Level crossing	Concerned for her grandchildren's safety who live along the alignment and go to school. Concerns raised around fencing near active crossings and school bus stops.	All fencing where the rail passes within a few hundred metres of schools or school bus stops should be at a minimum 1.8 m chain link fence. Do not place level crossings near school bus stops.	Revised draft EIS Chapter 5: Project Description, Section 5.4.12 discusses fencing. The rail corridor will be fenced with the exception of the Condamine floodplain due to increased risk of trapped debris causing blockage. In this area, guide posts will be used to demarcate the rail corridor. Where superior fencing is required (e.g. where tracks are in close proximity to key roads and/or communities, or where trespass is anticipated) a 1.8 m chain link boundary fence may be provided.	Chapter 5: Project Description Section 5.4.12

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
37	37.0002	Private	Traffic and Transport	Level crossing	The alignment crossing the Millmerran Road three times is dangerous, expensive and unnecessary.	It would be safer and more cost efficient for the alignment to stay in the forestry on the western side of the Millmerran Road, away from farm land and houses.	<p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> ▶ Fewer farms affected mid-block ▶ Fewer farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at-grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Appendix BT
37	37.0003	Private	Social Impact Assessment		Concerned about the effects of up to 900 mostly young men moving into the area. Believes the work force will increase substance abuse and crime, putting a strain on medical and police services.	Perform a mandated number of drug tests for all employees, with those operating heavy machinery to have more frequent testing. ARTC should need to provide funding to community health services to support extra hiring in mental health and drug outreach programs in Inglewood, Millmerran and Goondiwindi.	<p>As local people will also be employed, there would not be 900 people moving into the area. The three non-resident workforce accommodation facilities are located over a distance of approximately 100 kilometres, and work crews will be distributed over a distance of approximately 200 kilometres, so no one area will experience an inundation of 900 workers. The average workforce has been revised in Appendix X: Social Impact Assessment, Section 4.1.7, and will be approximately 383 people.</p> <p>There is no evidence to suggest that non-local construction workers will contribute to increased substance abuse and crime in local towns. Project personnel will include a wide range of occupations, professions and trades. Of note, the average age of construction workers in Australia is 38 years (Australian Government 2021, Labour Market Information Portal, labourmarketinsights.gov.au, accessed 20 September 2021), so the perception that personnel will be primarily young men is incorrect.</p> <p>The Contractor will be required to implement a workforce Code of Conduct which adheres to ARTC's Code of Conduct and associated policies as a minimum standard. These policies require a commitment to a drug/alcohol free workplace and implementation of a drug/alcohol testing program that covers all workers. Revised draft EIS Appendix X: Social Impact Assessment, Section 7.2.5 has been updated in this regard.</p> <p>ARTC has sponsored 'Living in Place, to provide an independent monitor of community wellbeing measures and exploration of residents most pressing local area concerns, such as housing affordability, cost of living, crime/antisocial behaviour and drug/alcohol abuse (Appendix X: Social Impact Assessment, Section 4.3).</p> <p>ARTC has invested in a mental health partnership to increase the community's access to local, independent mental health services. ARTC has also initiated a partnership with Mates in Construction, established to address mental health concerns among Australian construction workers. Appendix X: Social Impact Assessment, Section 8.5.3 has been updated in this regard.</p>	Appendix X: Social Impact Assessment Section 4.1.7 Section 4.3 Section 7.2.5 Section 8.5.3
37	37.0004	Private	Social Impact Assessment	Local business and industry procurement	Concerned that the project will poach staff from local businesses, impacting their prosperity. Concerned the project is likely to pay above award wages to project work force and this will create acrimony between locals (who do not work on the project) and the non-resident workforce.	The principal contractor should be required to make the standard conditions of employment in consultation with the local councils and industry groups to prevent the shut down of local businesses.	<p>Appendix X: Social Impact Assessment, Section 8.3 states 'one of ARTC's primary aims is to maximise employment opportunities for residents within the SIA study area by:</p> <ul style="list-style-type: none"> ▶ Facilitating skills development opportunities to build regional capacity in construction and rail operation ▶ Building partnerships with training providers to strengthen workforce skills in the Social Impact Assessment (SIA) study area and reduce the potential for cumulative impacts to draw labour and skills from other businesses ▶ Requiring the Contractor to employ locally, and to implement workforce training and diversity strategies'. <p>Section 8.3.4 of Appendix X: Social Impact Assessment also notes 'there is also potential for cumulative demands for construction personnel for Inland Rail and other projects to cause labour shortages for businesses in the SIA study area'. Section 7.5 states 'some of the types of trades required (e.g. welders, concreters) may be in demand by local business and residents, however other trades required (e.g. those required for major civil construction, flashbutt welding and sleeper laying) are specific to major infrastructure projects.'</p> <p>ARTC has established the Inland Rail Skills Academy (Appendix X: Social Impact Assessment, Section 8.3.2) to increase the skills and capacity of the local workforce to participate in construction employment.</p> <p>ARTC partnered with Goondiwindi Regional Council to support a 'Local Employment Roadmap' which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment, Section 8.3.4 has been updated in this regard.</p> <p>If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the Contractor to refine the Project's recruitment and training strategies (Appendix X: Social Impact Assessment, Section 8.3.7).</p> <p>Appendix X: Social Impact Assessment, Table 8.10 'summarises workforce management and development objectives, outcomes and actions that will maximise the employment of people from the SIA study area and Indigenous people in the Project's construction workforce, increase the skills profile of the SIA study area's labour force, and minimise impacts on other businesses.'</p>	Appendix X: Social Impact Assessment Section 7.5 Section 8.3 Section 8.3.2 Section 8.3.4 Section 8.3.7 Table 8.10
37	37.0005	Private	Hazard and Risk	Construction water supply	Concerned about the use of biodegradable polymers instead of water for dust suppression. To avoid use of hazardous materials where possible, water should be used exclusively for dust suppression. Believes spreading plastics near children who reside near the alignment is unnecessary.	Water should be used exclusively for dust suppression.	<p>Biodegradable dust suppression agents as an additive to water for dust suppression are an effective mitigation measure, aiding in minimising dust emissions and also typically providing significant reductions in the quantity of water required for dust suppression. Biodegradable dust suppression agent additives are used regularly in construction projects, and it is not expected that the use of polymer additives presents significant risk of impacts to sensitive receptors or the community. Any potential human health impacts resulting from the use of polymer additives will be reviewed for the particular polymer product selected for use, prior to application during construction. It is noted that there are numerous polymer products available for use.</p> <p>The suitability of using biodegradable dust suppression additives to water will be assessed by the Contractor on a location-by-location basis. Where use of biodegradable additives is considered suitable, the handling, mixing and application of these agents will be conducted in accordance with the products' Technical Data Sheet and Safety Data Sheet.</p> <p>Mitigation measures and controls that will be adopted to manage dust generation are presented in Chapter 24: Draft Outline Environmental Management Plan.</p>	Chapter 24: Draft Outline Environmental Management Plan
38	38.0001	Private	Traffic and Transport	Level crossing	Concerns raised about traffic delays caused whilst trains pass at level crossings. Submitter is pregnant and is specifically concerned about how these delays may impact access to Toowoomba hospital to deliver the baby.	Nil	<p>Regarding level crossings, ARTC recognises the complex decision-making process surrounding public road rail interfaces. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>Section 3.6 and Section 3.7 of EIS Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring a consistent safety-based risk approach to determine crossing treatments. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>Whilst recognising the difficulty of anyone making a long journey to deliver a baby, it is noted that there is only one level crossing proposed between Inglewood and Toowoomba traveling via Millmerran-Inglewood Road and the Gore Highway. The Millmerran-Inglewood Road level crossing has a total wait time per closure of 101 seconds. Further, it is noted that removing the existing level crossing on the Gore Highway at Brookstead and replacing it with a road bridge over rail grade separation will shorten the potential wait time on this journey.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
39	39.0001	Private	Traffic and Transport	Level crossing	The level crossing at Millmerran-Inglewood road will be a road hazard for the rural community. Submitter highlights this is a busy main road and school route. Concerned that the 37 level crossings proposed between Inglewood and Millmerran will exacerbate the number of near misses and fatalities which are already known to occur at level crossings. As a firefighter, submitter is concerned about how the road traffic delay (of approx. 10 mins) at level crossings will impact response time to incidents which are time critical.	Nil	<p>Regarding level crossings, ARTC recognises the complex decision-making process surrounding public road rail interfaces. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and an understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>Section 3.6 and Section 3.7 of EIS Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used to ensure a consistent safety-based risk approach to determining crossing treatments. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>It is noted that there is only one level crossing proposed between Inglewood and Toowoomba traveling via Millmerran-Inglewood Road and the Gore Highway. The Millmerran-Inglewood Road level crossing has a total wait time per closure of 101 seconds. Further, it is noted that removal of the existing level crossing on the Gore Highway at Brookstead in replace of a road bridge over rail grade separation will shorten the potential wait time on this journey.</p> <p>Section 5.9.3 of Appendix AA: Traffic Impact Assessment discusses analysis assumptions a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4). This section also details on how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of:</p> <ul style="list-style-type: none"> ▶ The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line ▶ The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate ▶ The time it takes the train to cross the level crossing ▶ Design vehicle consisting of a B-double for input parameters. 	Appendix AA: Traffic Impact Assessment Section 3.4 Section 3.7 Section 5.8 Section 5.9 Section 5.9.1 Section 5.9.3 Appendix BT
40	40.0001	Private	Traffic and Transport	Level crossing	Concerned about the level crossing proposed for Millmerran-Inglewood road in QLD which intersects with a 100 km/hr Section of the highway. Submitter raised that level crossings are dangerous and cause fatalities. The risk of incidents at level crossings will be exacerbated due to the speed of Inland Rail trains. Submitter expressed that the community's safety should be paramount in the planning of this project and the proposal needs to be reconsidered.	Nil	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. Section 3.6 and Section 3.7 of EIS Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring a consistent safety-based risk approach to determine crossing treatments.</p> <p>From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONSRS audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
41	41.0001	Private	Noise and Vibration	Operational rail noise	Concerned that residences within 1 km of the rail line may experience noise at night exceeding 49dB (Chapter 14 page 35). Submission references WHO Night Noise Guideline for Europe (2009) which suggests there is strong evidence for increased rates of hypertension and myocardial infarction when maximum night noise is above 50dB and that other long term effects are likely but not yet proven.	Every residence within 1 km of the rail should be offered sound mitigation as a condition of the EIS. Mitigation should include where possible (but not limited to) rail dampers, track lubrication, noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a LAmax of 49. Mitigations should be at proponents expense and implemented prior to Inland Rail being operational.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations). The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dB Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 11 Section 17
41	41.0002	Private	Traffic and Transport	Level crossing	The Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities. For this reason, the submitter believes the EIS should be conditional upon no new level crossings being built over state or council roads.	No new level crossings being built over state or council roads should be condition of project approvals.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides the Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR Level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet .	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
42	42.0001	Private	Traffic and Transport	Level crossing	Placing a level crossing on Millmerran Inglewood Road, a 100 km/hr highway, is irresponsible and dangerous. Trains are expected to run nearly hourly at 80-115 km/hr and this represents an unacceptable risk to public safety.	Implement overpass at this location.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. Section 3.6 and Section 3.7 of revised draft EIS Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring a consistent safety-based risk approach to determine crossing treatments. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
43	43.0001	Private	Traffic and Transport	Level crossing	Placing a level crossing on Millmerran Inglewood Road, a 100 km/hr highway, is irresponsible and dangerous. Trains are expected to run nearly hourly at 80-115 km/hr and this represents an unacceptable risk to public safety.	Build a road over rail grade separation crossing or keep the alignment on the Western side of Millmerran Road and only cross once instead of three times.	The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road: <ul style="list-style-type: none"> Fewest farms affected mid-block Fewest farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewest residences within 200 metres. To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests': <ul style="list-style-type: none"> Restriction of access Loss of flora and fauna Changes to bushfire management Weeds and pests Changes to drainage and minimising sediment and erosion Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations. The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared. The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT
44	44.0001	Private	Noise and Vibration	Operational rail noise	The Brookstead Community Hall has not been identified as being a non residential sensitive receptor in Appendix T, pg. 61, Table 28. The hall is less than 150 m from the inland rail track.	Nil	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment – Railway Operations). Section 16.5 of Chapter 16: Noise and Vibration, and Appendix A and Appendix E of Appendix W: Noise and Vibration Assessment - Railway Operations presents a summary of sensitive land uses and receptors. As per Appendix A: Adopted Sensitive Receptors, Map 44A within Appendix W: Noise and Vibration Assessment - Railway Operations, the Brookstead Community Hall has been identified with a Receptor ID 262035. Appendix E: Predicted Airborne Railway Noise Levels - Year 2040 Design Year within Appendix W: Noise and Vibration Assessment - Railway Operations, Receptor ID 262035 does not exceed the noise criteria adopted from the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration. Subsequently as per the Interim Guideline, the Brookstead Community Hall does not exceed the airborne noise criteria for mitigation and therefore is not a non-residential sensitive receptor.	Chapter 16: Noise and Vibration Section 16.5 Appendix W: Noise and Vibration Assessment - Railway Operations Appendix A Appendix E

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
44	44.0002	Private	Noise and Vibration	Operational road traffic noise	The Brookstead Community Hall is less than 150 m from the inland rail track and will be affected by road noise caused by a road over rail overpass on the Gore Highway. Concerns raised that loaded heavy vehicle's accelerating and decelerating over this rail structure will create more noise at the hall.	Nil	<p>The Brookstead Community Hall is included as a sensitive receptor to the construction noise and vibration and operational road traffic noise assessments. Brookstead Community Hall (receptor 262035) is included as part of the sensitive receptor set in Appendix A of Appendix V: Noise and Vibration - Construction Noise and Road Traffic. The receptor has been assessed as a community receptor against the CoP V1 and CoP V2 criteria. Noise and vibration impacts to this building are in Appendix C, D, and I of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic The operational road traffic noise assessment predicted compliance with the CoP V1 criteria at the Brookstead Community Hall.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Appendix A</p> <p>Appendix C</p> <p>Appendix D</p> <p>Appendix I</p>
45	45.0001	Private	Flooding		The crossing of the Condamine flood plain puts lives and properties at risk. Millmerran Rail Group has had flood modelling done the findings of this support community consensus that this will not be safe.	Nil	<p>The flood modelling conducted for the Project, including the Condamine River modelling, has been reviewed by the Independent International Expert Flood Panel appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practices. This includes consideration of community safety and the potential impact of Inland Rail on flood behaviours.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 2</p>
45	45.0002	Private	Traffic and Transport	Level crossing	Department of Transport and Main Roads has a policy of building no new level crossings (8), as does the Office of the National Rail Safety Regulator (6), yet there are 37 level crossings in the draft design. According to the ARTC level crossing fact sheet on its website there are 1000 near misses at level crossings every year. The ONRSR says there were 37 collisions at level crossings in 2019-2020 (5). Six of these were collisions involving freight trains and 5 of those took place at active level crossings. The ARTC website claims these are all the result of driver error and as such no level of active controls can effectively mitigate the risk. I note the Inglewood Millmerran Road is the only state controlled road to be crossed more than once, and that one crossing is an active level crossing where cars and heavy vehicles travelling 100 km/hr around a curve may need to stop suddenly.	Build a grade separated crossing at the South Millmerran Road level crossing site. Build the extra earthworks required to stay on the western side of Millmerran Road where there are less properties impacted and less farming land.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides the Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>Further, in June 2020 ONRSR finalised an audit of the Inland Rail Road-Rail Crossing Strategy. The audit recognised a consistent, systematic and comprehensive process for the assessment of level crossings applied to determine adequate treatments, noting that the approach ensures level crossing safety risks are eliminated or minimised, so far as is reasonably practicable in accordance with Rail Safety National Law.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.6</p> <p>Section 3.7</p> <p>Section 5.8</p> <p>Section 5.9</p> <p>Appendix BT</p>
45	45.0003	Private	Traffic and Transport	Operational traffic	The level crossing will increase Darling Downs double emergency life threatening illness response time by up to 7.7 minutes, doubling it from 8 minutes currently. This is due to the 2-3 minute wait time at level crossings, or 9 crossings within 5 km near Yelarbon. The solution in the EIS of appropriate access and egress arrangements as a mitigation measure is misleading, dangerous and disingenuous. The submitter is worried about slow going trains and its impacts on the wait time at the level crossing. The data provided in the draft EIS is modelled on 1800 m train travelling at 115 km/hr. If the trains become 3600 m trains in future the effect will be more pronounced.	Build a grade separated crossing at the South Millmerran Road level crossing site. Build the extra earthworks required to stay on the western side of Millmerran Road where there are less properties impacted and less farming land.	<p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> Fewest farms affected mid-block Fewest farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewest residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests:</p> <ul style="list-style-type: none"> Restriction of access Loss of flora and fauna Changes to bushfire management Weeds and pests Changes to drainage and minimising sediment and erosion Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.7</p> <p>Section 5.8</p> <p>Section 5.9</p> <p>Appendix BT</p>
45	45.0005	Private	Social Impact Assessment	Local business and industry procurement	Need to publish percentage of local and indigenous business engagement as a percentage so benchmarks can be monitored.	Publish a social mitigation strategy with benchmarks such as using Acciona example of 10% of employment coming from within 125 km of the project and 2% indigenous involvement	<p>As noted in Appendix X: Social Impact Assessment, Section 7.5.3, ARTC's Australian Industry Participation Plan and Sustainable Procurement Policy have a key focus on providing local and Indigenous businesses and social enterprises with full, fair and reasonable opportunity to participate in the supply of goods and services to Inland Rail.</p> <p>The Project will underpin its planning with the minimum participation targets set by related Commonwealth and Queensland policy, and will drive outcomes toward aspirational or incentivised targets with Contractors to exceed these minimum benchmarks. The Project's contractual negotiations will remain commercial in confidence.</p> <p>Inland Rail's tender assessment criteria includes local Indigenous participation as a key element of all construction tender assessments. The minimum Indigenous procurement target referred to in the Commonwealth Indigenous Procurement Policy's organisation-based requirements is for 3 per cent indigenous procurement minimum, i. e. at least 3 per cent of the value of the contractor's Australian supply chain must be subcontracted to Indigenous enterprises, on average over the initial term of the contract (Australian Government, 2015). The Project will ascribe to the policy's minimum benchmark of 3 per cent Indigenous procurement by 2027/28.</p> <p>There is no relevant target for local procurement from within an area such as the Social Impact Assessment (SIA) study area. ARTC's planning will be guided by an aspirational target of 15 per cent of the value of Project procurement to be spent with businesses that are located within the SIA study area.</p> <p>As outlined in Appendix X: Social Impact Assessment, Section 8.7 and Table 8.14, the Contractor will be required to monitor of the number of people from the SIA Study Area that are employed in construction and the number and value of contracts with businesses located in the Goondiwindi and Toowoomba LGAs in line with targets, and report on outcomes.</p> <p>ARTC has also commenced delivery of business capability strategies; Appendix X: Social Impact Assessment, Section 6.2.6 has been updated in this regard.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 6.2.6</p> <p>Section 7.5.3</p> <p>Section 8.7</p> <p>Table 8.14</p>
45	45.0006	Private	Social Impact Assessment	Workforce accommodation village	More information behind the Social Impact Management Plan should be provide to the public around monitoring, frequency, the cut-off triggers. Concerned for Rural Townships landlords and lease agreements. The submitter is worried that ARTC might and lease agreements and end several tenancies without notice	Investigate the policy of forcing employees to live in the non-resident accommodation if local rents are affected to ensure fairness for tenants and landlords. Insist all contractors have done criminal record checks on all employees from outside the local area and exclude those with histories of violent crime. Insist on a zero tolerance policy to infractions of the code of conduct for all contractors and their employees. Work with councils to lessen the impact on availability of tradespeople in smaller townships.	<p>Appendix X: Social Impact Assessment, Section 7.3.5 notes the potential for unmanaged housing impacts to impact on local residents' housing access. Appendix X: Social Impact Assessment notes that if rental vacancy rates remain low (as is expected), ARTC would take steps to mitigate negative impacts by requiring workers to take up occupancy in the non-resident workforce accommodation provided, rather than in the rental market or short term accommodation premises.</p> <p>Appendix X: Social Impact Assessment, Section 8.7.3 (Table 8-14) also notes that the Project will monitor the percentage of its total workforce requiring accommodation, occupancy rates of the non-resident workforce accommodation, the number of people being accommodated in the impact assessment area each month and rental vacancy rates in potentially impacted communities, and that monitoring would be conducted quarterly during first two years of construction (or to workforce peak).</p> <p>Additional information has been provided in Appendix X: Social Impact Assessment, Section 8.4.4 with respect to accommodation management and mitigation of housing impacts.</p> <p>The Contractor will be required to implement a workforce Code of Conduct which adheres to ARTC's Code of Conduct and associated policies as a minimum standard. These policies require a commitment to a drug/alcohol free workplace and implementation of a drug/alcohol testing program that covers all workers.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 7.3.5</p> <p>Section 8.4.4</p> <p>Section 8.7.3</p> <p>Table 8-14</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
45	45.0007	Private	Social Impact Assessment	Workforce and employment	Non-resident workforce accommodations should be required to operate shuttle buses to the local pubs to help prevent drink driving, and prevent the boredom that may lead to socially unacceptable behaviour.	Insist all contractors have done criminal record checks on all employees from outside the local area and exclude those with histories of violent crime. Insist on a zero tolerance policy to infractions of the code of conduct for all contractors and their employees. Provide a courtesy shuttle bus to bring employees from the non-resident workforce accommodation camps to town to prevent the incidence of drink driving and boredom/isolation/mental health issues. Work with councils to lessen the impact on availability of tradespeople in smaller townships.	<p>The Contractor will provide appropriate social facilities within the non-resident workforce accommodation. Depending on the location of non-resident workforce accommodation facilities in relation to nearby towns, provision of a shuttle bus may be appropriate to enable workers to access local shops, hotels and services.</p> <p>ARTC requires its contractors to undertake due diligence in the recruitment of all personnel. Personnel are required to hold the appropriate certification to work on construction sites.</p> <p>Appendix X: Social Impact Assessment, Section 7.4.7 notes that ARTC will employ strategies to reduce concerns about, and potential impacts on, community safety including:</p> <ul style="list-style-type: none"> Enforcing a Code of Conduct containing requirements for positive behaviours and respect for local residents and businesses applying to all contractor and Project personnel Ensuring that the Contractor has appropriate workforce conduct policies and procedures, complemented by complaints mechanisms which ensure fast and effective resolution to any issues experienced <p>ARTC will require the Contractor to:</p> <ul style="list-style-type: none"> Report on implementation of, and compliance with, the Code of Conduct Through consultation with Queensland Police Service and regular monitoring of community complaints, ensure that any personnel behaviour that offends local values is addressed through communication and contractual arrangements. <p>As described in Appendix X: Social Impact Assessment, Section 8.4.4, Councils will be involved in the Accommodation Management Plan development process and in approval processes for accommodation facilities. ARTC has also committed to engagement with Goondiwindi Regional Council and Toowoomba Regional Council.</p>	Appendix X: Social Impact Assessment Section 7.4.7 Section 8.4.4
45	45.0008	Private	Social Impact Assessment	Workforce and employment	Out-of-town workforce should be managed by a code of conduct. The literature shows that increases in crime and the marginalisation of women in towns experiencing rapid growth is a very real phenomenon and so it should not be trivialised. The ARTC employment conditions should specify a criminal record check, which excludes individuals with a history of violent crime.	Investigate the policy of forcing employees to live in the non-resident accommodation if local rents are affected to ensure fairness for tenants and landlords. Insist all contractors have done criminal record checks on all employees from outside the local area and exclude those with histories of violent crime. Insist on a zero tolerance policy to infractions of the code of conduct for all contractors and their employees. Provide a courtesy shuttlebus to bring employees from the non-resident workforce accommodation camps to town to prevent the incidence of drink driving and boredom/isolation/mental health issues. Work with councils to lessen the impact on availability of tradespeople in smaller townships.	<p>Appendix X: Social Impact Assessment, Section 7.4.7 notes that ARTC will employ strategies to reduce concerns about and potential impacts on community safety including:</p> <ul style="list-style-type: none"> Enforcing a Code of Conduct containing requirements for positive behaviours and respect for local residents and businesses applying to all contractor and Project personnel Ensuring that the Contractor has appropriate workforce conduct policies and procedures, complemented by complaints mechanisms which ensure fast and effective resolution to any issues experienced. <p>ARTC will require the Contractor to:</p> <ul style="list-style-type: none"> Report on implementation of, and compliance with, the Code of Conduct Through consultation with Queensland Police Service and regular monitoring of community complaints, ensure that any personnel behaviour that offends local values is addressed through communication and contractual arrangements (outlined in Section 8.3.7 of Appendix X: Social Impact Assessment). <p>There is no evidence to suggest that non-local construction workers will contribute to increased crime in local towns. ARTC requires its contractors to undertake due diligence in the recruitment of all personnel. Personnel are required to hold the appropriate certification to work on construction sites.</p> <p>Management measures which are provided as part of the Project's Accommodation Management Plan (AMP) framework (Appendix X: Social Impact Assessment, Section 8.4.4) include</p> <ul style="list-style-type: none"> Provision of an adequate number of non-resident workforce accommodation beds to meet peak workforce demand Discouraging single status personnel from renting houses in local communities Avoiding use of rental housing in Social Impact Assessment study area postcodes where the rental vacancy rate is less than 2.5 per cent (which signifies a tight rental market) Use of local short-term accommodation, where appropriate, in view of peak demands <p>Any use of local housing and accommodation will be monitored in relation to rental vacancy rates and as described in Appendix X: Social Impact Assessment, Section 8.4.4, corrective action will be taken if local access or tourism access to accommodation is being effected.</p> <p>As described above, ARTC will require the contractor to enforce a Code of Conduct and appropriate policies and procedures containing requirements for positive behaviours and respect for local residents and businesses applying to all contractor and Project personnel.</p> <p>The Contractor will provide social facilities within the non-resident workforce accommodation. Depending on the location of non-resident workforce accommodation facilities in relation to nearby towns, provision of a shuttle bus may be appropriate to enable workers to access local shops, hotels and services.</p> <p>As described in Appendix X: Social Impact Assessment, Section 8.4.4, Councils will be involved in the AMP development process and in approval processes for accommodation facilities. The Project will also continue to engage with stakeholders including Councils, Toowoomba and Surat Basin Enterprise, Toowoomba Chamber of Commerce and Goondiwindi Chamber of Commerce to monitor labour draw, and implement corrective actions such as changes to recruitment advertising or specific training strategies addressing skilled shortages if stakeholder feedback indicates that this is necessary to reduce competition with local businesses and organisations. (Appendix X: Social Impact Assessment, Section 7.2.2).</p>	Appendix X: Social Impact Assessment Section 7.2.2 Section 7.4.7 Section 8.4.4
45	45.0009	Private	Social Impact Assessment	Workforce and employment	SIMP says the impact on medical services will be mitigated by providing paramedics and advance notice to QLD Health. While the inclusion of paramedics is laudatory, it does not go far enough. This will not prevent the strain on doctors and the emergency clinics at the Inglewood and Millmerran Medical Centres and hospitals. There is already a long wait for appointments and this will only grow.	ARTC should employ a doctor for the provision of non-emergency medical care.	<p>The requirement for up to 900 workers to be based near Inglewood and Yelarbon is the peak requirement. Appendix X: Social Impact Assessment, Section 8.3.7 notes that the Project will provide access to paramedic services to reduce the demands on local health services.</p> <p>The Project has also committed to ensuring personnel are made aware of the need to attend to routine health issues whilst they are off roster, avoiding use of local GPs.</p> <p>As part of its planned quarterly consultation with Queensland Health during the Project's Construction Works stage, ARTC will monitor impact on local health services. If undue strain on local health services is identified to be attributable to the Project, ARTC will work with Queensland Health and the Darling Downs and West Moreton Primary Health Network (DD&WM PHN) to implement appropriate measures which may include:</p> <ul style="list-style-type: none"> Funding additional health services and programs at non-resident accommodation facilities, which may include contract arrangements with local or remote health service providers Adjustment of policies regarding workforce behaviour (i.e. ensuring staff attend to routine health issues off roster as directed). <p>Additionally, ARTC has implemented measures to minimise the spread of COVID-19 among its workforce and mitigate any associated impacts on local health services.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.7 and Section 8.5.8 have been revised in this regard.</p>	Appendix X: Social Impact Assessment Section 8.3.7 Section 8.5.8
45	45.0010	Private	Social Impact Assessment	Local business and industry procurement	Local people will not be able to find local tradespeople during construction. There is no mitigation option for the related impact of local businesses losing their tradespeople to lucrative short term contracts.	Employment contracts should be formulated in collaboration with local councils to ensure locals are not left worse off.	<p>Appendix X: Social Impact Assessment, Section 8.3.4, notes the possibility that the Project could compete with other businesses for personnel, as it will encourage local participation in the work force.</p> <p>ARTC has committed to the implementation of training programs (Appendix X: Social Impact Assessment, Section 8.3.7) which will increase the capacity of non-experienced workers to be employed by the Project, and mitigate skilled labour draw. Local businesses will also have the opportunity to supply to the Project, as described in Appendix X: Social Impact Assessment, Section 7.5. Appendix X: Social Impact Assessment, Section 8.3.7 and Section 8.6.5 has been updated to reflect recent initiatives and commitments with regard to local workforce and industry participation.</p> <p>Of note, ARTC has partnered with Goondiwindi Regional Council to support a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment, Section 8.3.4 has been updated in this regard.</p> <p>ARTC is unable to collaborate on employment agreements with other parties. However, Appendix X: Social Impact Assessment, Section 8.3.4 notes that the Project has committed to monitoring Inland Rail Projects' workforce ramp-up and the proportions of local and non-local personnel, and consulting with local Councils and Chambers of Commerce regarding any pressures they identify on local labour availability.</p> <p>If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the Contractor to refine the Project's recruitment and training strategies.</p>	Appendix X: Social Impact Assessment Section 7.5 Section 8.3.4 Section 8.3.7 Section 8.6.5
45	45.0011	Private	Social Impact Assessment	Local business and industry procurement	While construction stage of the project may improve tourism business due to the non-resident workforce, those who are in close proximity to the rail will see a drastic fall in custom once ARTC becomes operational.	Mitigation or compensation measures should be put in place for businesses who will suffer. Work with industry groups and individual businesses to provide mitigation or compensation commensurate to losses during the operation phase of the project.	<p>ARTC will work with stakeholders, including impacted local businesses and tourism operators, to minimise or offset impacts. Appendix X: Social Impact Assessment, Section 8.6.5 notes the potential for operational noise to impact the amenity of businesses in Yelarbon, Brookstead and Pittsworth. ARTC will work with business operators to reduce the potential for impacts on their amenity. For the operational period, impacts would be managed through the imposed conditions of the Project's EIS approval and ARTC's operational management standards.</p> <p>Appendix X: Social Impact Assessment, Section 8.6.2, also notes that ARTC will consult with tourism-related businesses when the Project's detailed design is confirmed regarding potential impacts, and work with tourism stakeholders to minimise or offset these impacts.</p> <p>Additionally, Appendix X: Social Impact Assessment, Section 8.6.5 states ARTC and/or the Contractor will also:</p> <ul style="list-style-type: none"> Consult with local Chambers of Commerce, tourism associations and tourism service providers to explain management measures regarding amenity, road connections, and supply chain development and seek feedback Work with local Chambers of Commerce, Toowoomba and Surat Basin Enterprise, Southern Queensland Country Tourism, tourist information centres and the Goondiwindi and Toowoomba Regional Councils to develop a strategy to ensure that any potential impacts on tourism visitation are mitigated through support for tourism marketing campaigns targeting potentially impacted communities and/or other projects agreed with stakeholders. <p>There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property. Additionally, the Project will develop a Community Wellbeing Plan (Appendix X: Social Impact Assessment, Section 8.5.6) which will include placemaking initiatives to offset impacts on local character, and/or support recreation or tourism initiatives.</p>	Appendix X: Social Impact Assessment Section 8.5.6 Section 8.6.2 Section 8.6.5
46	46.0001	Private	Traffic and Transport	Level crossing	Placing a level crossing on Millmerran Inglewood Road, a 100 km/hr highway is irresponsible and dangerous. Trains are expected to run nearly hourly at 80-115 km/hr and this represents an unacceptable risk to public safety.	Suggests adding an overpass at this section.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millmerran and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
47	47.0001	Private	Traffic and Transport	Level crossing	Placing a level crossing on Millmerran Inglewood Road, a 100 km/hr highway is irresponsible and dangerous. Trains are expected to run nearly hourly at 80-115 km/hr and this represents an unacceptable risk to public safety.	Suggests adding an overpass at this Section in the interest of safety.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT
48	48.0001	Private	Flooding	Infrastructure crossings/interation	Concerned about the proposed alignment on the Eastern side of Millmerran Inglewood Road as it requires crossing floodwaters from Canning Creek. "As I write this, there is about 6 metres of water flowing down Canning Creek. Aerial photos show the flood waters are pressing up against the proposed alignment of the Inland Rail on the Eastern side of Millmerran Inglewood Road. ARTC has made a claim in Section 5.1.3 of the draft EIS they are trying to minimise watercourse crossings but then come within very close proximity at the Southern end of Millmerran Inglewood Road. You would not be able to run a train on the proposed alignment today. The western side of Millmerran Inglewood Road is high and dry. "	Consider re-routing alignment to western side of Millmerran Inglewood Road which is high and dry. It impacts less freehold properties, has a similar length and transit time and does not cross into the flood zone for Canning Creek. It requires more earthworks but the savings from the alternative are spurious.	<p>A hydraulic impact assessment has been prepared for the proposed alignment at Canning Creek. The alignment is designed to cater for the required 1% AEP flood immunity.</p> <p>As described in Section 2.8-2.10 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5% (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5% (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5% technical viability: 17% safety: 16.5% constructability: 12.5% operations: 16.5%. <p>The Border to Gowrie alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> Fewest farms affected mid-block Fewest farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewest residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Appendix E: Consultation Report
48	48.0002	Private	Traffic and Transport	Level crossing	B2G will have 37 level crossings and increase the number of level crossings in QLD by 2.3-3.0% and the risk of level-crossing incidents in QLD by a commensurate amount. The rail provides no benefit to Inglewood, only traffic delays and dangerous crossings. The cost of level crossing incidents is calculated to be approximately \$10 million annually to Queensland (3), and the border to Gowrie Section would increase this by \$300000pa	Reject the inappropriate proposition of an active level crossing on the Millmerran Inglewood Road, and budget for more sensible and well designed grade separated crossings.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT
48	48.0003	Private	Traffic and Transport	Level crossing	Concerned about the impacts of the level crossings on response time for emergency services. Between chainage 38 and 84 there are 17 level crossings, effectively cutting off properties on the east and north of Inglewood from prompt arrival at Inglewood hospital in an emergency, or prompt transfer to Toowoomba hospital from Inglewood Hospital.	Budget for more sensible and well designed grade separated crossings.	<p>ARTC notes that between Ch 38 km – Ch 84 km there are 7 level crossings, these are noted below:</p> <ol style="list-style-type: none"> Whetstone Access Road Cremascos Road Lovells Crossing Road Thornton Road Millmerran-Inglewood Road Grays Road Wongavale - Yugalbar Road <p>Of the level crossings above, there is only one level crossing proposed between Inglewood and Toowoomba traveling via Millmerran-Inglewood Road and the Gore Highway. The Millmerran-Inglewood Road level crossing has a total wait time per closure of 101 seconds. Further, it is noted that removal of the existing level crossing on the Gore Highway at Brookstead in replace of a road bridge over rail grade separation will shorten the potential wait time on this journey.</p> <p>Section 5.9.3 of Appendix AA: Traffic Impact Assessment discusses analysis assumptions a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4). This Section also details on how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of:</p> <ul style="list-style-type: none"> The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate The time it takes the train to cross the level crossing Design vehicle consisting of a B-double for input parameters. 	Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.1 Section 5.9.3 Appendix BT
48	48.0004	Private	Social Impact Assessment	Local business and industry procurement	Concerned about the impacts on services, in particular Queensland Health services. During construction there will be up to 600 extra people from the non-resident workforce accommodations in Yelarbon and Inglewood accessing medical services in Inglewood. This will cause further delays for doctor's appointments for residents in those areas.	ARTC should be required to provide their own doctor.	<p>The requirement for up to 900 workers to be based near Inglewood and Yelarbon is the peak requirement. Appendix X: Social Impact Assessment, Section 8.3.7 notes that the Project will provide access to paramedic services to reduce the demands on local health services.</p> <p>The Project has also committed to ensuring personnel are made aware of the need to attend to routine health issues whilst they are off roster, avoiding use of local GPs.</p> <p>As part of its planned quarterly consultation with Queensland Health during the Project's Construction Works stage, ARTC will monitor impact on local health services. If undue strain on local health services is identified to be attributable to the Project, ARTC will work with Queensland Health and the Darling Downs and West Moreton Primary Health Network (DD&WM PHN) to implement appropriate measures which may include:</p> <ul style="list-style-type: none"> Funding additional health services and programs at non-resident accommodation facilities, which may include contract arrangements with local or remote health service providers Adjustment of policies regarding workforce behaviour (i.e. ensuring staff attend to routine health issues off roster as directed). <p>Additionally, ARTC has implemented measures to minimise the spread of COVID-19 among its workforce and mitigate any associated impacts on local health services.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.7 and Section 8.5.8 have been revised in this regard.</p>	Appendix X: Social Impact Assessment Section 8.3.7 Section 8.5.8

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
48	48.0005	Private	Project alignment		From page 16 of the attached Inglewood to Millmerran Engineering and Environmental Studies report by Luke Smith and Mark Barnett (1), it can be seen that the Western side of the Millmerran Road referred to as route 3133 impacts less freehold properties, has a similar length and transit time, but requires 64% more earthworks. The study does not mention that this route has a lower price for land resumption, a lower price for road/rail interfaces and does not cross into the flood zone for Canning Creek that is currently under water. It would appear this route has been chosen entirely to avoid the expense of earthworks, but these savings are spurious. Especially if one rejects the inappropriate proposition of an active level crossing on the Millmerran Inglewood Road, and budgets for a more sensible grade separated crossing.	Provide 3 grade separated crossings on Millmerran Inglewood Road to ensure public safety.	<p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> • Fewer farms affected mid-block • Fewer farm operations/dwellings within 200 metres of alignment • No direct impacts to feedlots • Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> • Restriction of access • Loss of flora and fauna • Changes to bushfire management • Weeds and pests • Changes to drainage and minimising sediment and erosion • Changes to interests on the State forests e.g. aparies permits, grazing leases and timber values with the forest. <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing with boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT
49	49.0001	Private	Traffic and Transport	Level crossing	Concerned about the danger of level crossings and also traffic delays. ARTC has misrepresented the data which indicated the wait times by assuming they're going faster than what they will be during crossing. Particularly concerned about the delays when accessing emergency medical care.	ARTC should be required to complete the wait times and queuing data for EVERY crossing based on the slowest moving train and not the fastest.	<p>Revised draft EIS Chapter 5: Project Description, Section 5.4.1 describes the operation of the double-stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC notes that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system.</p> <p>Appendix AA: Traffic Impact Assessment, Section 5.9.3 discusses analysis assumptions of a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (see Section 2.4). This Section also details how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the <i>Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings</i>. The estimated wait time is considered a function of:</p> <ul style="list-style-type: none"> • The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line • The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate • The time it takes the train to cross the level crossing • Design vehicle consisting of a B-double for input parameters <p>Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows:</p> <ul style="list-style-type: none"> • Train clearance times were calculated based on an assumed maximum train speed of 115 km/h • Calculation of the freight train acceleration rate • Distance of the level crossing from passing loops • Distance required to accelerate to maximum turnout speed (50 km/h) • Distance travelled while at constant maximum turnout speed • Distance required to accelerate to maximum speed after whole train has passed turnout • Total distance required to reach maximum speed for train starting from turnout • Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). • The wait times determined for each individual level crossing were calculated based on: • Level crossing specific operating speeds which is impacted by topography and curvature of the alignment • Time taken for the train to cross the level crossing • Distance from train crossing loops • Train length • Summarised traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons) • A sensitivity test (to represent a conservative upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. <p>Typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished.</p>	Chapter 5: Project Description Section 5.4.1 Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.1 Section 5.9.3
49	49.0002	Private	Traffic and Transport	Construction traffic	Concerned about the effect of oversize vehicles transporting 29 m super-T precast concrete girders on the road.	Would like reassurances that the Yelarbon Kurumbul Road will be maintained during and after the construction activity ends.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts with Section 5.6.4 highlighting mitigation measures for pavement damages to local government roads. It is noted that residents have raised concern regarding maintenance of Yelarbon Kurumbul Road during construction works.</p> <p>The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. ARTC has had ongoing discussions with the Road Manager, Goondiwindi Regional Council (GRC) on pavement impact and road maintenance arrangements.</p> <p>Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.</p>	Appendix AA: Traffic Impact Assessment Section 5.6 Section 5.6.4
49	49.0003	Private	Noise and Vibration	Directly impacted landowner	The average daytime and night time noise and maximum noise levels are projected to be above trigger levels at her property. Concerned about the health impacts of the noise during construction and operations. Believes that noise mitigation treatments will not be able to bring the noise back to a liveable level.	Approval of the draft EIS should be conditional on the proponent commitments Appendix being amended to ensure property treatments (sound barriers) are offered to all affected property owners, not just investigated. Should consultation with a sound engineer determine that noise mitigation treatments will not bring the noise back to a liveable level at her property, she would like ARTC to offer to buy her house at (pre-project) market value.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at sensitive receptors along the Border to Gowrie alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The assessment of noise levels with conceptual noise barriers has identified that, depending on the final extent and the height of the noise barriers, the noise criteria may not be fully achieved at all receptors (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4). At-property treatments could then be applied to sensitive receptors that do not achieve the noise criteria, this would be determined by ARTC on a case-by-case basis. All noise mitigation will be in place prior to commencement of Inland Rail operations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Section 17.4
50	50.0001	Private	Traffic and Transport	Level crossing	Placing a level crossing on Millmerran Inglewood Road, a 100 km/hr highway is irresponsible and dangerous. Trains are expected to run nearly hourly at 80-115 km/hr and this represents an unacceptable risk to public safety.	Suggests adding an overpass at this section.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
51	51.0001	Private	Project alignment		The alignment should be rerouted to an area less prone to accidents and loss of lives.	The inland rail would be better to follow the route drawn in the attached map. It goes through state forest and would cut out 5 main road crossings and taken away from good farm land.	<p>The preferred location for the proposed rail corridor (as presented in Chapter 2: Project Rationale, Section 2.8 and Section 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15 in Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the <i>Corridor Options Report</i> (AECOM, 2017b), based on the Australian Government's announcement that the base case via Wellcamp Charlton alignment was to be progressed through a phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale which describes the route selection process.</p> <p>ARTC worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The process for this comparative assessment of four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to the Project.</p> <p>Road-rail interfaces are described in Chapter 5: Project Description, Section 5.4.8. While ARTC has sought to limit the number of new level crossings in the revised reference design, the Project includes lower-risk level crossings where the road-rail interface treatment assessment has concluded that the risk to safety has been minimised 'so far as is reasonably practicable'. Proposed public road-rail interfaces and proposed treatments included in the revised reference design are provided in Chapter 5: Project Description, Table 5-15.</p> <p>As described in the Public Level Crossing Treatment Methodology (see Appendix BT: Inland Rail Road Interface Methodology of Appendix AA: Traffic Impact Assessment), ARTC apply a consistent methodology to develop road-rail interface treatments across this Inland Rail program which complies with Rail Safety National Law and the Office of the National Rail Safety Regulator (ONRSR) Guidelines. Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project.</p> <p>The Border to Gowrie alignment crosses Millmerran-Ingleswood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Ingleswood Road:</p> <ul style="list-style-type: none"> Fewest farms affected mid-block Fewest farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewest residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Ingleswood Road.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Chapter 5: Project Description Section 5.4.8 Table 5-15 Appendix E: Consultation Report Appendix AA: Traffic Impact Assessment Appendix BT
52	52.0001	State Agency	Nil Response		Nil response from DSDSATIP.	Nil	ARTC acknowledges that DSDSATIP raised no comments on the draft EIS.	N/A
53	53.0001	Private	Noise and Vibration	Operational rail noise	ARTC admits residences within 1 km of the rail may experience noise at night above 49dB (Chapter 14 page 35 draft EIS) The evidence for increased rates of hypertension and myocardial infarction is strong when maximum night noise is above 50dB (Night Noise Guideline for Europe, WHO, 2009) with other long term effects likely but not yet proven.	It should be a condition of the EIS that every residence within 1 km of the rail is offered sound mitigation including where possible (but not limited to) rail dampers, track lubrication, noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L _{Amax} of 49. This should be at the proponent's expense, and built by the proponent or its contractors prior to the Border to Gowrie Section of Inland Rail becoming operational.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (see Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration – Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dB Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration – Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration – Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration – Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
53	53.0002	Private	Traffic and Transport	Level crossing	The Office of the National Rail Safety Regulator and Queensland Transport and Main Roads both have policies of no new level crossings due to the severity of potential high speed train/heavy vehicle crashes. There are over 600 near misses yearly, and were 40 collisions between trains and road vehicles in 2017-2019, many resulting in fatalities.	The EIS should be conditional upon no new level crossings being built over state or council roads.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
54	54.0001	Private	Noise and Vibration	Operational rail noise	Passing lane less than 1 km from residences. In conjunction with this passing loop is an active level crossing, to allow access to our divided property. As this is an active level crossing, trains will be required to sound their horn. (These facts are stated in the Inland Rail EIS and consultation with ARTC staff) The combination of the passing loop, with trains stopping and starting as well as sounding their horns at the level crossing on an almost hourly basis will have completely unacceptable implications on lifestyle.	Suggests if ARTC were to undertake negotiations to purchase a portion of their property, the need for access would be negated and thus no level crossing necessary. No suggestions made for noise created from the passing loop.	<p>Operational noise and vibration modelling for the revised draft EIS has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). As part of the assessment, noise levels from the crossing loops and level crossings have been assessed in Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3.</p> <p>At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. Train movements within the crossing loops are discussed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during the Detailed Design stage. Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible.</p> <p>Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 17
54	54.0002	Private	Social Impact Assessment	Property Devaluation	Concerned for substantial devaluation of their property. Noise impacts will make several of the residences on the property less attractive to tourists, as owners had plans to turn property into a B&B during their retirement years.	No solutions provided.	<p>The submitter notes that they have two residences on the property which are intended for use as Bed & Breakfast accommodation in the future. The nearest of the property's three dwellings is approximately 1.1 kilometres to the south of the rail alignment. At this distance, exceedance of noise criteria is not predicted in noise modelling undertaken for the Project.</p> <p>ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project.</p> <p>ARTC notes that in the Detailed Design stage it will remove the level crossing and propose an alternative road access to the property via Cremasco Road.</p>	N/A
54	54.0003	Private	Social Impact Assessment	Land acquisition/compensation	Concerned the division of their property will make future development on the unimproved divided area extremely difficult.	If a suitable agreement is reached on the sale of the divided area, considering future development plans, there would no longer be a need for future plans in the divided area.	<p>Property acquisitions will be undertaken by Department of Transport and Main Roads (DTMR) as the Acquiring Authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967 (Qld) (AL Act).</p> <p>Appendix X: Social Impact Assessment, Section 7.1.2 notes that landowners will be entitled to claim compensation for the loss of a legal interest in land or estate in land, in accordance with the AL Act. If eligible for compensation, the compensation payable includes highest and best use market value of the land taken at the date of resumption.</p> <p>Compensation for disturbance caused by the resumption may also apply and may include, for example, reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs, and the reasonable financial costs incurred that are a direct consequence of the resumption of the land.</p> <p>Where only part of a land parcel is acquired, compensation for damage caused by the severance of land the resumed land and the impact upon the remaining land may also apply. The process for claiming compensation is set out in the AL Act. If the parties do not agree on compensation, a dispute about compensation can be referred to the Land Court.</p>	Appendix X: Social Impact Assessment Section 7.1.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
54	54.0004	Private	Social Impact Assessment	Directly impacted landowner	The owner had the intention to retire on their property however they are concerned the proximity of the rail will significantly decrease the standard of living and peace.	Suggests eliminating the active level crossing will help however, they see no solution to the constant noise.	The submitter is located on McDougall's Crossing Road Inglewood and identifies a passing lane and an active level crossing less than 1 kilometre from three residences. The level crossing of McDougall's has been removed from the Project design. The revised draft EIS has been updated to reflect this change. At 1 kilometre from the rail line, revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations, Section 7 and Section 8 of Appendix W: Noise and Vibration Assessment - Railway Operations, indicates that noise exceedances are unlikely to be experienced.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 7 Section 8
54	54.0005	Private	Noise and Vibration	Directly impacted landowner	Concerned the passing loop and active level crossing that are less than 1 km from their residences will have completely unacceptable implications on their lifestyle with horns being sounded and trains crossing on an hourly basis.	No solution provided	Operational noise and vibration modelling for the revised draft EIS has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). As part of the assessment, noise levels from the crossing loops and level crossings have been assessed in Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3. At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. Train movements within the crossing loops are discussed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3. It should be noted that the stopping and idling of trains at passing loops while generating noise of differing character to the passing trains is a less significant noise source than trains passing at higher speed. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 17
54	54.0006	Private	Surface Water	Directly impacted landowner	The rail line will isolate half of their residence from access to water. Currently, the water access for the whole property is the Macintyre Brook.	Suggests sale of the property will eliminate this issue.	It is acknowledged that the submitter's property will be substantially impacted by the Project. ARTC is in the process of consulting with landowners to determine an appropriate make-good strategy on a case-by-case basis. Through this process, the measures developed for each impacted property will be unique and commensurate with the level of impact realised. As outlined in Appendix S: Surface Water Quality Technical Report, Section 7.2 (Table 7.1), the detailed design will be developed to ensure that, where possible, private water storages and infrastructure are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources and associated infrastructure cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private water infrastructure (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).	Appendix S: Surface Water Quality Technical Report Section 7.2 Table 7.1
54	54.0007	Private	Hazard and Risk	Directly impacted landowner	The property has been organically certified for 30 years. Owner is concerned the rail will cause certification issues regarding potential chemical contamination from weed treatments along the line.	Suggests ARTC engaged with stakeholders and communicate closely with the owners to make sure no property contamination.	The suitability of chemical use, such as herbicides, will be assessed by the 'Contractor' on a location-by-location basis which will include consultation with adjoining landowners. Where use of herbicides is considered suitable and acceptable to adjoining landowners, the handling, mixing and application of these chemical will be conducted in accordance with the products' Technical Data Sheet and Safety Data Sheet (Chapter 24: Draft Outline Environmental Management Plan). If landowners advise ARTC engaged with stakeholders or the 'Contractor' of a preference for herbicides not to be used in proximity to their property, then alternative methods of weed control will be adopted. This control measure is reflected in Section 21.6 of Chapter 21: Hazard and Risk.	Chapter 21: Hazard and Risk Section 21.6 Chapter 24: Draft Outline Environmental Management Plan
55	55.0001	Private	Noise and Vibration	Directly impacted landowner	Concerned the passing loop will disturb the residence due to the close proximity of the rail.	Suggests moving the loop to the north east to Ch 131.31-133.53 or to Ch 137.0 km. This would be further from homes and busy roads.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). As part of the assessment, train movements within the crossing loops are discussed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3. Consideration of alternative passing loop locations was not part of the noise and vibration studies, however, as noted in Chapter 2: Project Rationale, Section 2.8 and 2.9, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report, Sections 3 and 4), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works Stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Section 3 Section 4 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 17
55	55.0002	Private	Traffic and Transport	Operational traffic	Concerned there will be long delays at the crossing	Suggests moving the loop.	The selection of crossing loop locations has followed an iterative process between the operational modelling team and the Project's design team, with the specific locations accounting for local constraints and considerations (see Section 8.4 of Chapter 8: Land Use and Tenure), while ensuring that capacity and transit time requirements can still be achieved. Operational modelling determined the number of crossing loops required in each Inland Rail project to ensure that sufficient crossing opportunities are provided to deliver the required capacity and transit times across the network. This frequency ensures that Inland Rail will meet the service offering of <24hrs transit time by facilitating the passing of trains on single line track. Discussion regarding Project crossing loops is discussed in Chapter 5: Project Description, Section 5.4.3.	Chapter 5: Project Description Section 5.4.3 Chapter 8: Land Use and Tenure Section 8.4
55	55.0003	Private	Land Use and Tenure	Directly impacted landowner	States it is not necessary to use his land.	Suggests using Lovels road which has not been used for 50 years.	The submitters concern is noted. Mitigation measures that have been factored into the reference design, or otherwise implemented during the Reference Design stage for the Project are described in Chapter 8: Land Use and Tenure, Section 8.6.1 and include: <ul style="list-style-type: none"> The Project is co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. Where possible the Project footprint is located adjacent to property boundaries to reduce potential fragmentation and sterilisation of agricultural land The Project footprint has been established to provide the minimum-sized area required to safely and efficiently construct, maintain and operate the Project. Where stock routes have been intersected by the Project footprint, design solutions have been proposed that allow for the continuity of stock movement. During detailed design, the Project footprint will be further refined to that which is required to safely construction, operate and maintain the Project, which will include minimising property acquisition requirements, property severance and disruption to land use and transport networks (Chapter 8: Land Use and Tenure, Section 8.5.4, Table 8-46). ARTC will continue to consult with the affected landholder through the Detailed Design stage.	Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.1 Table 8.46
56	56.0001	Private	Noise and Vibration	Directly impacted landowner	An inventory pad and the Inland Railway are proposed about 80 m from the landholder's dwelling. Noise from construction and during operation will be a nuisance. A community consultation meeting confirmed that noise levels will be higher than the allowable decibels.	Early property acquisition.	ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the Construction Works and Operations stages of the Project. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the Detailed Design stage of the Project. Mitigation has been included in the revised draft EIS. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
56	56.0002	Private	Air Quality	Directly impacted landowner	Landholder's dwelling will be impacted by pollution (dust and fumes) from the nearby proposed inventory pad and construction machinery, and from operating trains.	Early property acquisition.	As a landholder in close proximity to the alignment, the Project acknowledges their concern. The landholder's dwelling has been considered in the air quality assessment for the Project. In the dispersion model developed for the assessment of the Operations stage in Appendix F of Appendix R: Air Quality Technical Report, the landholder's dwelling has been represented by sensitive receptor R1832. The landholder's dwelling is located less than 50 metres from the edge of the permanent footprint for the Project. The Construction Works and Operations stages of the Project will result in emissions to air. However, the assessment of the Construction Works and Operations stages has determined that the impact of air emissions to sensitive receptors, including the landholder's dwelling, will not be significant with the inclusion of recommended mitigation measures. Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust, which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). As discussed in Section 12.3.2 of Chapter 12: Air Quality, gaseous emissions (fumes) from construction vehicles are unlikely to present a risk of significant impact. The Construction Works stage assessment has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts for impacts to health and nuisance/amenity will be low or negligible. The assessment of the Operations stage determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in the Air Quality Chapter) within the study area for the Project. Further information on the results of the Construction Works and Operations stage assessment on impacts to air quality are presented in Section 12.5 of Chapter 12: Air Quality, Section 12.6 of the Chapter presents the mitigation measures recommended for the Project. These mitigation measures are to be included in the Construction Environmental Management Plan (CEMP) for the Project, as described in Chapter 24: Draft Outline Environmental Management Plan, and, when implemented, impacts to sensitive receptors are not expected to be significant. The property is not being considered for acquisition as it is not directly impacted by the Project. Both ARTC and the Contractor will continue to engage with landowners during future Project stages to ensure information is shared, and potential impacts from Project activities are effectively minimised and managed.	Chapter 12: Air Quality Section 12.7 Section 12.8 Section 12.3.2 Section 12.5 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Appendix F
56	56.0003	Private	Social Impact Assessment	Property Devaluation	The project will devalue the landholder's property, which was intended to be their retirement home.	Early property acquisition.	The revised draft EIS is unable to provide advice on individual property values. Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in Appendix X: Social Impact Assessment, Section 7.1.9. As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres. The revised draft EIS is unable to comment on the specifics of individual land acquisition agreements as these will be determined by the acquiring authority in consultation with landowners. With the exception of early acquisitions by ARTC based on demonstrated hardship, the majority of land required for the Project will be acquired by Department of Transport and Main Roads (DTMR), as the acquiring authority, under the Acquisition of Land Act 1967 (Qld) (Appendix X: Social Impact Assessment, Section 7.1.2). However this won't commence until the Project is approved.	Appendix X: Social Impact Assessment Section 7.1.2 Section 7.1.9
56	56.0004	Private	Social Impact Assessment	Directly impacted landowner	Project is a cause of stress for the landholder and their family, which is negatively affecting their health.	Early property acquisition.	Appendix X: Social Impact Assessment, Section 8.5.3, acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landowners' concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access mental health support services. The revised draft EIS is unable to provide advice on individual property values. Property acquisitions will be undertaken by Department of Transport and Main Roads (DTMR) as the acquiring authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967 (Qld). This includes compensation for reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs and other reasonable financial costs incurred that are a direct consequence of the resumption of the land (Appendix X: Social Impact Assessment, Section 7.1.2). ARTC will also provide supporting information for people who need to relocate, including referral to Department of Communities, Housing and Digital Economy housing support programs where necessary. Land acquisition is currently only available to property owners whose land is directly affected by the Project, or where satisfactory noise mitigation could not be achieved. There is no legislative requirement to acquire or pay compensation for a loss in value unless land is acquired from a property for the Project.	Appendix X: Social Impact Assessment Section 7.1.2 Section 8.5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
56	56.0005	Private	Social Impact Assessment	Directly impacted landowner	Project construction and operation will make the landholder's performance horses stressed, which will negatively impact their health and ability to perform.	Early property acquisition.	Ongoing consultation with affected landowners, and the wider communities, will be undertaken in accordance with ARTC's consultation plan, as discussed in Chapter 6: Stakeholder Engagement. Negotiation of land acquisition will be undertaken in accordance with the Acquisition of Land Act 1967 (Qld), which includes the process for the resumption of land by a constructing authority (e.g. Department of Transport and Main Roads) and compensation. A summary of land within the permanent footprint that will potentially be subject to full or partial acquisition is provided in Table 8-36 of Chapter 8: Land Use and Tenure, and a detailed record of all impacted properties is in Appendix F: Impacted Properties. The extent of land acquisition will be confirmed following completion of the Detailed Design stage.	Chapter 6: Stakeholder Engagement Chapter 8: Land Use and Tenure Table 8-36 Appendix F: Impacted Properties
56	56.0006	Private	Stakeholder engagement	Land acquisition/compensation	ARTC staff at a community consultation meeting were surprised the landholder had not already been considered for early acquisition due to the close proximity of the project to their property/dwelling.	Early property acquisition.	The Department of Transport and Main Roads (DTMR) is managing the property acquisition process for the Project (see Section 5.3.5, Chapter 5: Project Description and Chapter 8: Land Use and Tenure). ARTC notes that subsequent to the submission of the draft EIS, the submitter applied for early acquisition and was informed that because the property was not directly impacted by the reference design, it did not meet the requirements to be considered for early acquisition. Impacted properties are summarised in Appendix F: Impacted Properties. Properties not directly impacted by the Project will be engaged on a case-by-case basis to determine appropriate mitigation measures are in place to minimise the impact of noise and vibration in line with Australian standards.	Chapter 5: Project Description Section 5.3.5 Chapter 8: Land Use and Tenure Appendix F: Impacted Properties
57	57.0001	Private	Land Use and Tenure	Directly impacted landowner	Project is proposed to occupy 60 acres of the landholder's property with about 30 acres between the rail and boundary fence. This land will be inaccessible to farm.	Move the alignment.	As stated in Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51, where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. 	Chapter 8: Land Use and Tenure Section 8.6.2 Table 8-51
57	57.0002	Private	Flora and Fauna	Koala	Koala habitat aligns the area of the landholder's property where the railway is proposed to be located. The project will have a significant impact on the koalas that use that habitat.	Move the alignment.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Biodiversity (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy
57	57.0003	Private	Groundwater	Private groundwater bore/s	Landholder has experienced water scarcity with the ongoing drought. ARTC proposes to excavate about 30 metres in the area where the landholder accesses their water - cutting their water supply. Landholder wants to know what will happen to the aquifers they access and where will ARTC source the water required for the project.	Move the alignment.	The predictive groundwater modelling undertaken as part of the revised draft EIS indicates that the horizontal extent of drawdown is predicted to extend a maximum of 10 m to 43 m horizontally from the rail centreline (from the deepest cuts). This drawdown will be localised around the vicinity of the deep cuts that intersect groundwater only. No regional groundwater drawdown or wider impact on the aquifer is anticipated, nor is drawdown expected to occur outside the disturbance footprint (see Chapter 15: Groundwater, Section 15.6.2). As part of ARTC's construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements. The current hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, it would be secured through private agreement through trading or purchasing of existing allocated entitlements, and the licenced capacity of existing bores will not be exceeded as described in Tables 15-17 and 15-20. The preferred alignment for the proposed rail corridor was identified based on an analysis of multiple corridor options, with the final preferred alignment presenting the strongest benefits for industry and the community in general, while minimising impacts to the natural and rural landscape. The location of the alignment was selected in part as it is located within the existing Southern Freight Rail Corridor, gazetted as a future rail corridor in 2010. While some registered groundwater bores will be impacted as a result of the Project alignment, ARTC will engage with these impacted water users/landowners to determine appropriate make-good mitigation measures on a case-by-case basis (see Chapter 15: Groundwater, Section 15.7.4).	Appendix B5: Construction Water Requirements Chapter 15: Groundwater Section 15.6.2 Section 15.7.4 Table 15-17 Table 15-20
58	58.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 6.2 of Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor. The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced. The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to: <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will: <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Section 17.6 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 11 Section 17
58	58.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downward setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment. The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10. The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G). Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period. The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels. With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
58	58.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling was undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
58	58.0004	Private - Brookstead	Flooding - Condamine River		<p>The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS.</p> <p>The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.</p>	<p>The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.</p>	<p>The final report by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice, has now been released. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Matters raised by the Expert Flood Panel in their Final Report, dated 6 September 2022 have been addressed in Sections 5 to 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. The Expert Flood Panel's 'Issues Management Register' has been included in Sub-Appendix A of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, with a statement against each comment demonstrating where ARTC has addressed these issues within the revised documentation</p> <p>The impact assessment documented in both Chapter 14: Flooding and Geomorphology (Section 14.8) and Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 through to 21) has been updated on a catchment by catchment basis to account for comments made by the Expert Flood Panel as well as incorporating revised Flood Impact Objectives (FIO) developed in consultation with the Expert Flood Panel. Mitigation measures have been provided against each FIO exceedance.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Sections 5 - 21</p> <p>Sub-Appendix A</p>
58	58.0005	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yarlton to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
58	58.0006	Private - Brookstead	Social Impact Assessment	Modelling	<p>The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.</p>	<p>The Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Appendix X: Social Impact Assessment, Section 4.3, notes that the survey did not return a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>The Social Impact Assessment (Appendix X: Social Impact Assessment) has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6</p> <p>Section 6.2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
58	58.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	<p>The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.</p>	<p>The revised draft EIS Terms of Reference require that the selected alignment is assessed.</p> <p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, while construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Appendix X: Social Impact Assessment, Section 8 provides a comprehensive Social Impact Management Plan addressing all identified impacts, including community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in revised draft EIS Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p> <p>Additionally, ARTC has sponsored "Living in Place", an independent survey run by social research specialists, to provide a statistically valid and ongoing monitor of community values and experiences, as well as an exploration of residents most pressing local area concerns as they relate to the liveability of their local area (Appendix X: Social Impact Assessment, Section 6.2.2). This monitoring tool will be initiated in the Project Approvals and Corridor Acquisition stage of the Project and will enable all local stakeholders to build an understanding of top local area concerns, how they change over time, and how they compare beyond, across and within their Local Government Area.</p> <p>Appendix X: Social Impact Assessment, Section 6.2 has been updated in this regard.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Section 8</p> <p>Section 8.5.6</p>
59	59.0001	Private - Brookstead	Social Impact Assessment		<ul style="list-style-type: none"> Concern raised due to the potential social impacts of the close proximity of the rail corridor to the quiet country town of Pittsworth, which has lots of retirees who chose to move there in retirement and that all residents in and around Pittsworth love their lifestyle where they are. The submitter highlights that several people who have bought property on the edge of Pittsworth had their Solicitor undertake a search for infrastructure when purchasing their land and houses, and these searches did not show any infrastructure concerns however, these people are being told that they have to move from their homes. The submitter states that they bought a property just on the outskirts of Pittsworth on Lochaber Road to shed their caravan and valuables away from flood waters on their property at Pampas. The submitter highlights that the Brookstead State School is just metres from the railway line and questions how the children will be able to travel to and from school with the increased road risk due to the rail proximity and crossing. 	<ul style="list-style-type: none"> The submitter states that there is an alternative route that would not affect so many people and this route will not expose so many people to so much anxiety and mental health issues. The submitter states that the community consultation process needs to be undertaken again and requests that an independent facilitator oversees the consultation, to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication. The submitter states that the consultation in the Pittsworth region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The submitter highlights that as the detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS, it does not provide an opportunity to adequately respond to the EIS as they do not have sufficient information and that in itself is a failing of stakeholder engagement, the planning and communication process. The submitter states on this basis that the draft EIS should be rejected on the incomplete nature of information needed to effectively comment on environmental and social impact. 	<p>The Project traverses the northern outskirts of Pittsworth. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders, and properties.</p> <p>The revised draft EIS assesses changes to the Project's reference design which have resulted from stakeholder engagement since the draft EIS was submitted, and/or in relation to the preferred contractor's design solutions. The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan provides mitigation measures which will be adaptive to any changes to impacts as a result of the detailed design process.</p> <p>Assessment of the Project's potential operational noise impacts is detailed in revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations (SLR, 2020) and indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required.</p> <ul style="list-style-type: none"> ARTC has engaged with Department of Education and the agreed approach is to work with the Department of Education during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. ARTC has also advised Department of Education about the need for permanent road realignments at Brookstead, and committed to consultation with the Brookstead community in the development of more detailed traffic management measures during the Detailed Design stage. <p>As further discussed in Appendix X: Social Impact Assessment, Section 8.5.1, ARTC will consult with the Department of Education and Brookstead State school during the development of the Detailed Design stage and confirmation of construction works methodology to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to local traffic during construction, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways Conduct an audit of the affected schools' sites layouts, to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, which may include façade treatments, fence treatments or air conditioning Confirm all relevant school bus services and contact details for their operators to enable consultation with the operators Identify any specific considerations (e.g. off-campus sports or activities) which should be considered in the Project's Road Use Management Plan and Traffic Management Plan. <p>The Terms of Reference require the EIS to assess the nominated route, which was selected after extensive analysis and consultation, as described in Appendix E: Consultation Report.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8.5.1</p>
59	59.0002	Private - Brookstead	Flora and Fauna	Koala	<ul style="list-style-type: none"> The submitter highlights the issue of impacts on wildlife, specifically Koala habitats in the proposed railway line location from Pampas to Southbrook and states that it is the breeding ground of an extensive koala community. The submitter notes that in Chapter 10, Figure 10-2d, there are no ecological survey sites taken between Pittsworth and Southbrook and they further note that in Chapter 10, Figure 10-8d there are no koala communities indicated at Yarranlea nor between Pittsworth and Southbrook. The submitter disputes the EIS, stating that it has not addressed the Terms of Reference for flora and fauna in Section 11.95 (listed above), as there is not an accurate indication of the numbers, diversity and extent of the koala habitat in the local region. 	<ul style="list-style-type: none"> The submitter states that the studies from Millmerran to Southbrook need to revisit surveys of and impacts on local wildlife specifically, the EIS Chapter on Flora and Fauna needs to be redone to include accurate information on the koala numbers and habitat from Millmerran to Southbrook The submitter states that without accurate numbers, impacts and mitigation cannot be determined in an acceptable and sustainable way. 	<p>Following the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koala, during the Construction Works stage. Fauna crossing structures and fencing will be installed to maintain habitat connectivity and restrict access to the rail corridor. As outlined in Chapter 11: Flora and Fauna, these mitigation measures have been selected based on the best available information including government guidelines and similar projects.</p> <p>Since the submission of the draft EIS, ARTC has developed a Draft Koala Management Plan. Appendix M: Draft Koala Management Plan, proposes management and mitigations that specifically addresses impacts to Koalas during both construction and railway operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.7</p> <p>Appendix E: Consultation Report</p> <p>Chapter 11: Flora and Fauna</p> <p>Appendix M: Draft Koala Management Plan</p>
59	59.0003	Private - Brookstead	Noise and Vibration	Modelling	<p>The submitter disputes the numbers given in Figure 2-15, Chapter 2, stating that the numbers on affected residents only include those with property within the rail corridor and therefore do not include the 3296, residents of Pittsworth (2016 census numbers) living within 5 km of the rail line that will be affected by the noise and disruption of rail construction and operation. The submitter states that the numbers in Chapter 2 are misleading to make the Base case route look better.</p>	<p>A night-time curfew, to be placed on trains passing through the towns of Pampas, Brookstead and Pittsworth. The submitter states that the detail of train signalling being only provided in the detailed design stage subsequent to the EIS, does not provide an opportunity to adequately respond to the EIS as there is insufficient information on potential noise issues. The submitter states that the information provided in the EIS, Chapter 23 regarding noise barriers does not provide the necessary level of detail around noise levels and mitigation options and in itself is a failing of the ToR. On this basis, the submitter states that the draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on noise and vibration and social impact.</p>	<p>ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS project alignment. The study area is substantially larger than normally applied on transport infrastructure projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>As noted in Section 2.9.3 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, has been updated to include an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p> <p>Regarding proposed solution, it is not feasible to place a night-time curfew on trains travelling through the towns of Pampas, Brookstead and Pittsworth, as one of the remits of Inland Rail is to move freight between Melbourne and Brisbane within 24 hours. However, ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
59	59.0004	Private - Brookstead	Noise and Vibration	Mitigation measures	<p>The submitter highlights that the noise and vibration from the Inland Rail line will be heard all over town, causing immense stress and disruption to lives. The submitter highlights that the railway line will be just metres from the Brookstead State School and questions how the children will be able to work with noise and vibration happening daily.</p>	<p>A night-time curfew, to be placed on trains passing through the towns of Pampas, Brookstead and Pittsworth. The submitter states that the detail of train signalling being only provided in the detailed design stage subsequent to the EIS, does not provide an opportunity to adequately respond to the EIS as there is insufficient information on potential noise issues. The submitter states that the information provided in the EIS, Chapter 23 regarding noise barriers does not provide the necessary level of detail around noise levels and mitigation options and in itself is a failing of the ToR. On this basis, the submitter states that the draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on noise and vibration and social impact.</p>	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, has been updated to include an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p> <p>The Brookstead and Yelarbon State Schools are located within 200 m of the Project footprint and the Southbrook Central State School is located 900 m from the alignment. These schools may be impacted by construction and/or operational noise and construction activities. Consultation with these schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2, Queensland Government engagement. The agreed approach is to work with the schools and DoE during detailed design to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments</p> <p>Regarding proposed solution, it is not feasible to place a night-time curfew on trains travelling through the towns of Pampas, Brookstead and Pittsworth, as one of the remits of Inland Rail is to move freight between Melbourne and Brisbane within 24 hours. However, ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 10</p> <p>Section 17</p>
60	60.0001	Private - Brookstead	Flooding - Condamine River	Modelling	<p>The submitter states concern that lives will be lost if the Inland Rail is built across the Condamine floodplain near Pampas. The submitter highlights that the current rail design includes an embankment 1.095 m higher than current bank heights and this is a big difference on a flat, wide floodplain and that there is also insufficient bridging and culverts to allow free-flowing water under this new embankment height. The submitter states their concern that the culverts and bridges will also cause debris to build up and the flow of water won't be able to pass and then recede. The submitter recounts the floods at Pampas in 2010/2011; that their property on Fysh Road, Pampas was completely covered with flood water, that lives were lost at Grantham and stresses that floods will happen again.</p>	<p>The submitter states the detail of the flood model by the panel of experts and the likely impacts and increased flood risk and impact due to increased embankment heights with obstructed free flow across the flood plain are not yet available, so the EIS hydrology should be rejected until we have accurate information on hydrology. The submitter states that there is a much better alternative route where the railway line can be built and the other route would not affect as many peoples lives, their property and the flood impacts would be much less.</p>	<p>The EIS is focussed on the chosen alignment selected by the Australian Government.</p> <p>The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale, Section 2.8. Section 2.8 and 2.9 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
60	60.0002	Private - Brookstead	Flooding	Modelling	The submitter disputes the numbers given in Figure 2.-15, Chapter 2 of the EIS as well as the cost comparisons between the route have been made on accurate numbers. The submitter states that the like-for-like costings did not include the additional bridging and construction costs to cross the flood plain, as ARTC have only become aware of construction difficulties on black soil foundations, and the real width and volume of water flowing across the floodplain between Millmerran and Brookstead in recent years. The submitter states that the numbers in Chapter 2 of the EIS are misleading to make the Base case route look better, and states that they were formed in 2016, before the flood modelling had been undertaken and before the flood plain crossing had been designed. The submitter states that the costs for the rail design have blown out substantially since then, as the enormity and reality of crossing the floodplain has become apparent.	The costings of the route comparisons in Figure 2.15 in Chapter 2 of the EIS must be undertaken on realistic figures around the current flood plain design to allow for a fair route comparison.	Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b) an independent process executed by consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The method of like-for-like design comparison options undertaken as part of the Corridor Options Report (outlined in Section 2.9.3 of Chapter 2: Project Rationale) are appropriate for design development because they allow designers to evaluate different design options based on a consistent set of criteria. When considering design alternatives, it is crucial to have a fair and objective basis for comparison at a set point in time to ensure that the best design choice is made with the information available at that time. By using like-for-like design comparisons, designers can assess the strengths and weaknesses of each option in relation to specific parameters such as functionality, cost, environmental impact, and feasibility. This approach ensures that all design options are evaluated on an equal footing, providing a fair and unbiased assessment. A chosen design undergoes refinement and adaptation to incorporate inputs such as updated flood modelling, site surveys, geotechnical studies, environmental assessments, and other relevant information.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15
60	60.0003	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> The submitter expresses that they have experienced issues with ARTC through the community consultation process and that ARTC have failed to build trust and credibility in stakeholder engagement. The submitter states that ARTC have dismissed local knowledge and records of flood heights, treating affected landowners with contempt. The submitter expressed that when ARTC came to visit their property (which had been badly damaged from flood waters) and showed ARTC records and markers of previous flood heights, ARTC responded stating that the flood could not have been that deep and that the flood line was painted on the shed. The submitter disputes that ARTC have undertaken the consultation process described in Appendix C, Figure 2-1, where they claimed they would 'inform, consult, involve, collaborate and empower' affected landowners. 	<ul style="list-style-type: none"> The community consultation process needs to be undertaken again. The submitter requests that an independent facilitator oversees the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Appendix C, Figure 2.1). The consultation in the Brookstead and pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses, particularly with reference to the flood model and likely impacts on future flood events. The submitter states that the detail of road and rail design will only be provided in the 'Detailed Design Phase' subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS as we do not have sufficient information. This in itself is a failing of stakeholder engagement and the planning and communication process. On this basis, the draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on environmental and social impact (Chapter 23, Table 23.5) 	<p>Details of the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design is outlined in Appendix E: Consultation Report, Section 5.3. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>ARTC's flood model has been reviewed by the International Independent Panel of Experts on Flood Studies to increase confidence in the reference design and mitigation measures proposed.</p> <p>As noted in Appendix T1: Hydrology and Flooding, ARTC will continue to consult with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered in the EIS and Project design. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event. Feedback from this consultation will be used to update flood modelling for the Project, if appropriate to do so. Outcomes of this consultation and revised local catchment modelling will be incorporated into the final EIS and alterations to the design and additional flood mitigation measures are communicated back to impacted landowners.</p> <p>In reference to this submission, since the draft EIS, the Pampas road design has been revised following consultation with key stakeholders and local road users. Details of these changes at Pampas can be found in Chapter 20: Traffic, Transport and Access and the engagement conducted in Appendix E: Consultation Report, Section 5.5.</p> <p>The road and rail design solution for Brookstead is still under development. As the reference design is an iterative process, engagement about road and rail design is ongoing with stakeholders.</p>	Appendix E: Consultation Report Section 5.3 Section 5.5
61	61.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Section 17.6 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 11 Section 17
61	61.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
61	61.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway Operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17
61	61.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. A The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.	Matters raised by the Expert Flood Panel in the International Panel of Experts for Flood Studies of Inland Rail in Queensland - Final Report, dated 6 September 2022 have been addressed in Sections 5 to 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. The Expert Flood Panel's "Issues Management Register" has been included in Sub-Appendix A of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, with a statement against each comment demonstrating where ARTC has addressed these issues within the revised documentation <p>The impact assessment documented in both Chapter 14: Flooding and Geomorphology (Section 14.8) and Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 through to 21) has been updated on a catchment by catchment basis to account for comments made by the Expert Flood Panel as well as incorporating revised Flood Impact Objectives (FIO) developed in consultation with the Expert Flood Panel. Mitigation measures have been provided against each FIO exceedance.</p>	Chapter 14: Flooding and Geomorphology Section 14.8 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5 - 21 Appendix A
61	61.0005	Private - Brookstead	Stakeholder engagement		ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.	Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.	The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2. <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fax sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible. In the detailed design and construction works methodology, individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
61	61.0006	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.	The Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). <p>Appendix X: Social Impact Assessment, Section 4.3, notes that the survey did not return a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>The Social Impact Assessment (Appendix X: Social Impact Assessment) has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
61	61.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	The revised draft EIS Terms of Reference require that the selected alignment is assessed. <p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, while construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Appendix X: Social Impact Assessment, Section 8 provides a comprehensive Social Impact Management Plan addressing all identified impacts, including community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in revised draft EIS Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p> <p>Additionally, ARTC has sponsored "Living in Place", an independent survey run by social research specialists, to provide a statistically valid and ongoing monitor of community values and experiences, as well as an exploration of residents most pressing local area concerns as they relate to the liveability of their local area. This monitoring tool will be initiated in the Project Approvals and Corridor Acquisition stage of the Project and will enable all local stakeholders to build an understanding of top local area concerns, how they change over time, and how they compare beyond, across and within their Local Government Area.</p> <p>Appendix X: Social Impact Assessment, Section 6.2.2 has been updated in this regard.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 6.2.2 Section 8 Section 8.5.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
62	62.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
62	62.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix C).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
62	62.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 6.2 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
63	63.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
63	63.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for the assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for the modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation is forecast to be 1 to 2 train movements per hour, with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise-enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline is detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is confident that all sensitive have been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>To illustrate how the proposed noise walls could look like, concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings and, where appropriate, will consider the inclusion of community artwork. Viewpoint 20 (Near Brookstead State School) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2.20, has been updated to include an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2.20</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
63	63.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 6.2 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 16 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

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As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
64	64.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 10.4) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
64	64.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 10.4</p> <p>Section 17</p> <p>Appendix G</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
65	65.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
65	65.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
65	65.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
66	66.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
66	66.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
66	66.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
67	67.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix V: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
67	67.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix C).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
67	67.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
68	68.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
68	68.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.9 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.9</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
68	68.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
68	68.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
68	68.0005	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
68	68.0006	Private - Brookstead	Social Impact Assessment	Modelling	<p>The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.</p>	<p>The Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Appendix X: Social Impact Assessment, Section 4.3, notes that the survey did not return a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>The Social Impact Assessment (Appendix X: Social Impact Assessment) has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
68	68.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	<p>Nil</p>	<p>The revised draft EIS assesses changes to the Project's reference design which have resulted from stakeholder engagement since the draft EIS was submitted, and/or in relation to the preferred contractor's design solutions. The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan provides mitigation measures which will be adaptive to any changes to impacts as a result of the Detailed Design stage.</p> <p>Assessment of the Project's potential operational noise impacts is detailed in revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations and indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required.</p> <p>ARTC has engaged with Department of Education and the agreed approach is to work with the Department of Education during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. ARTC has also advised Department of Education about the need for permanent road realignments at Brookstead, and committed to consultation with the Brookstead community in the development of more detailed traffic management measures during the Detailed Design stage.</p> <p>As further discussed in Appendix X: Social Impact Assessment, Section 8.5.8, ARTC will consult with the Department of Education and Brookstead State school during the development of the Detailed Design stage and confirmation of Construction Works methodology to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road realignments and associated laydown areas and access tracks Describe the construction schedule and the nature of road/rail interface treatments, temporary disruptions to local traffic during construction, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways Conduct an audit of the affected schools' sites layouts, to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, which may include façade treatments, fence treatments or air conditioning Confirm all relevant school bus services and contact details for their operators to enable consultation with the operators Identify any specific considerations (e.g. off-campus sports or activities) which should be considered in the Project's Road Use Management Plan and Traffic Management Subplan. <p>The EIS Terms of Reference require the EIS to assess the nominated route, which was selected after extensive analysis and consultation, as described in Appendix E: Consultation Report.</p> <p>ARTC is committed to working directly with landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise impacts during the Construction Works stage and through to operations.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8.5.8</p>
69	69.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	<p>Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.</p>	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
69	69.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> ▶ Non compliance with TOR set by CG 16.11.2018. ▶ The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. ▶ The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment. .</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
69	69.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> ▶ Non compliance with TOR set by CG 16.11.2018. ▶ The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. ▶ The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
69	69.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	<p>The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.</p>	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
69	69.0005	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yearlaron to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
69	69.0006	Private - Brookstead	Social Impact Assessment	Modelling	<p>The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.</p>	<p>The Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6</p> <p>Section 6.2.2</p>
69	69.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<p>Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation.</p> <p>Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140.</p>	<p>Nil</p>	<p>The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan provides mitigation measures which address impacts such as noise, dust and other environmental impacts. Relevant EIS chapters and technical reports also provide detailed assessments of the environmental, economic, cultural and social impacts that may result from the Project. Appendix X: Social Impact Assessment provides a detailed assessment of social impacts, along with a comprehensive Social Impact Management Plan. Appendix X: Social Impact Assessment has been updated to provide additional detail on management and mitigation measures in response to submissions and stakeholder engagement.</p> <p>Assessment of the Project's potential operational noise impacts is detailed in Appendix W: Noise and Vibration Technical Assessment - Railway Operations (SLR, 2020). Predicted noise levels and location of the nearby sensitive receptors triggered an investigation of rail noise barriers in Brookstead. This assessment indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required. ARTC has engaged with Department of Education and the agreed approach is to work with the Department of Education during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. ARTC has also advised Department of Education about the need for permanent road realignments at Brookstead, and committed to consultation with the Brookstead community in the development of more detailed traffic management measures during the Detailed Design stage.</p> <p>As further discussed in Appendix X: Social Impact Assessment, Section 8.5.8, ARTC will consult with the Department of Education and Brookstead State school during the development of the Detailed Design and confirmation of construction methodology to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to local traffic during construction, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways Conduct an audit of the affected schools' sites layouts, to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, which may include façade treatments, fence treatments or air conditioning Confirm all relevant school bus services and contact details for their operators to enable consultation with the operators Identify any specific considerations (e.g. off-campus sports or activities) which should be considered in the Project's Road Use Management Plan and Traffic Management Plan. <p>The revised draft EIS Terms of Reference require the revised draft EIS to assess the nominated route, which was selected after extensive analysis and consultation, as described in Appendix E: Consultation Report.</p> <p>ARTC is committed to working directly with landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise impacts during the Construction Works stage and through to operations.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8.5.8</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
71	70.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. <p>The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
70	70.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downward setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 11</p> <p>Section 17</p> <p>Appendix G</p>
70	70.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
70	70.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
70	70.0005	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yearlbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
70	70.0006	Private - Brookstead	Social Impact Assessment	Modelling	<p>The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.</p>	<p>The Survey should be repeated.</p>	<p>The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan provides mitigation measures which address impacts such as noise, dust and other environmental impacts. Relevant EIS chapters and technical reports also provide detailed assessments of the environmental, economic, cultural and social impacts that may result from the Project. Appendix X: Social Impact Assessment provides a detailed assessment of social impacts, along with a comprehensive Social Impact Management Plan. Appendix X: Social Impact Assessment has been updated to provide additional detail on management and mitigation measures in response to submissions and stakeholder engagement.</p> <p>Assessment of the Project's potential operational noise impacts is detailed in Appendix W: Noise and Vibration Technical Assessment - Railway Operations (SLR, 2020). Predicted noise levels and location of the nearby sensitive receptors triggered an investigation of rail noise barriers in Brookstead. This assessment indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required. ARTC has engaged with Department of Education and the agreed approach is to work with the Department of Education during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in- corridor or at- property noise treatments. ARTC has also advised Department of Education about the need for permanent road realignments at Brookstead, and committed to consultation with the Brookstead community in the development of more detailed traffic management measures during the Detailed Design stage.</p> <p>As further discussed in Appendix X: Social Impact Assessment, Section 8.5.8, ARTC will consult with the Department of Education and Brookstead State school during the development of the Detailed Design and confirmation of construction methodology to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to local traffic during construction, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways Conduct an audit of the affected schools' sites layouts, to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, which may include façade treatments, fence treatments or air conditioning Confirm all relevant school bus services and contact details for their operators to enable consultation with the operators Identify any specific considerations (e.g. off-campus sports or activities) which should be considered in the Project's Road Use Management Plan and Traffic Management Plan. <p>The revised draft EIS Terms of Reference require the revised draft EIS to assess the nominated route, which was selected after extensive analysis and consultation, as described in Appendix E: Consultation Report.</p> <p>ARTC is committed to working directly with landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise impacts during the Construction Works stage and through to operations.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8.5.8</p>
70	70.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	<p>The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.</p>	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during the Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6) acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.8.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
71	71.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to: <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree the communication process between ARTC and school communities during the Construction Works stage. </p> <p>The construction Contractor will: <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. </p> <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
71	71.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
71	71.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead and Yelarbon State Schools. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to: <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. </p> <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will: <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. </p> <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
72	72.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix V: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
72	72.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. 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Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. 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ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
72	72.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
72	72.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not including in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC acco with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks, and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
72	72.0005	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yearloun to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in-Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
72	72.0006	Private - Brookstead	Stakeholder engagement	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.	The Survey should be repeated.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6) acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
72	72.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6) acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
73	73.0001	Private - Brookstead	Project alignment		The submitter states that the corridor selected fails to be the safest location for a modern high speed freight train (115 km per hour carrying thousands of tons of freight). The submitter states that whilst rural communities do have trains and railways at present which were welcomed at the time when built (to service the needs of the community); these railway lines were built during the steam train era which only carried a fraction of the tonnage at a fraction of the speed. The submitter states that the goal of inland rail is to put freight on rail, being a great and much needed project, to reduce road transport for the safety of the travelling motorist, however building a high speed railway across a built up area when there is no need to contradicts what inland rail is about being safety. The submitter states that there is a failure of a duty of care.	The submitter states that the Cecil Plains route is the safest possible location and will be accepted by the people the best.	<p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>Chapter 21: Hazard and Risk of the EIS identifies and describes hazards and risks relevant to the Project and assesses the potential for impacts to people, property, and the environment. Policies, standards and guidelines of relevance to this assessment are introduced and summarised in Table 21-1. The following legislation is relevant to the assessment of hazards and risks for the Project:</p> <ul style="list-style-type: none"> Rail Safety National Law Work Health and Safety Act 2011 (Qld) (WHS Act) Explosive Act 1999 (Qld) Public Health Act 2005 (Qld) <p>Further discussion regarding the above legislation, their relevance to the Project and how the Project complies, is provided in Chapter 3: Legislation and Project Approvals Process.</p> <p>ARTC are committed to continued consultation with the community and key stakeholders through detailed design and construction to identify impacts and, where possible, mitigation measures.</p> <p>With respect to the Cecil Plains option, subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes.</p> <p>The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 21: Hazard and Risk</p> <p>Table 21-1</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Chapter 3: Legislation and Project Approvals Process</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
73	73.0002	Private - Brookstead	Project alignment		The submitter states that the corridor selection for B2G is a highly built up area and the tenure of the land within the permanent footprint of the corridor is predominantly freehold. The submitter states that each freehold land parcel is a private enterprise that produces a product or provides a service that the people of the communities rely upon for a livelihood. The submitter states that Inland rail is going to traverse hundreds of freehold parcels of land placing in danger the lives of the people that frequent these locations. The submitter states that there is a failure of a duty of care	The submitter states that the Cecil Plains route is the safest possible location and will be accepted by the people the best.	<p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>ARTC acknowledges the impact to landowner's properties and operations as a result of the Project, which will continue to be addressed as the design and construction planning progresses. In accordance with mitigation measures in Chapter 8: Land Use and Tenure, Section 8.6.2, the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as is reasonably practicable. Consultation with landowners would be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (https://www.inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.6.2</p> <p>Appendix E: Consultation Report</p>
74	74.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix V: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
74	74.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3). Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix V: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
74	74.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
74	74.0004	Private - Brookstead	Flooding - Condamine River		The ongoing assessment of the Independent Panel of Experts for flood studies, is expected to be completed by the end of 2021 and thus are not included in the Draft EIS. The Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth Government findings and recommendations are released after the deadline for the submission on the draft EIS. These findings affect stakeholders, including affected landowners on the Condamine River floodplain.	The draft EIS should be withdrawn and it should be ensured that all necessary items under the TOR are incorporated into the draft EIS for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The draft EIS should incorporate the Independent Panel of Experts for Flood Studies advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment for the CG and stakeholders, including affected landowners on the Condamine River floodplain. The findings from the Senate Inquiry in Management of Inland Rail project by ARTC and the Commonwealth should be considered for comment by affected stakeholders and affected landowners on the Condamine River floodplain.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1
74	74.0005	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power rotation between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022 followed by a second in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. Brookstead and Pampas road and rail consultation: <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
74	74.0006	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the project.	The Survey should be repeated.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6) acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
74	74.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc.) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6) acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
75	75.0001	Private	Economics		The project's economic impact assessment does not address TOR items 11.21(e) and 11.141. The assessment of the project's impact on the agricultural industry does not consider the value of individual commodities produced per lot or the value-added activities which contribute to the gross value of agricultural production in the region. The dEIS suggests an assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design.	<p>The CG should:</p> <ol style="list-style-type: none"> not accept the draft EIS as the final EIS request additional information from ARTC to be included in a revised draft EIS to be released for public comment. The requested additional information in the revised draft EIS to be released for public comment should include: <ol style="list-style-type: none"> detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government. 	<p>In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates in the revised draft EIS, including to the calculated potential loss for rural communities. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020/21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. <p>In response to the additional information requested:</p> <ul style="list-style-type: none"> Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Chapter 2: Project Rationale, Section 2.9.3). Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (https://www.inlandrail.gov.au/understanding-inland-rail/publications-and-reports). <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 1.4. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmm.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=C1CGEB_enAU1015AU1015&ocq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57.9731j0j4&sourceid=chrome&ie=UTF-8</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 18: Economics</p> <p>Section 18.9</p> <p>Section 18.12</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Appendix Y: Economic Impact Assessment</p> <p>Section 5.5</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
76	76.0001	Private	Groundwater	Private groundwater bore/s	Landholder's bores access the Main Range Volcanics (MRV) aquifer, which is expected to be impacted by constructing the project. This could potentially lead to draw down at the landholder's bores. ARTC has committed to make good on bores they decommission but not on bores they inadvertently draw down, should this occur.	ARTC to commit to make good on bores that are drawn down as a result of the project.	<p>Predictive groundwater modelling was undertaken to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (i.e. cuts most likely to intersect groundwater). The revised draft modelling results indicates that the extent of drawdown is to extend up to 10 m to 43 m from the centre of the Project alignment (from the deepest cuts) during the Construction Works stage. The modelling was updated and further refined as part of Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.</p> <p>ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging (see Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey (Chapter 15: Groundwater, Table 15.7). Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users, potential make-good process and measures, and detailed in Chapter 15: Groundwater, Table 15.20. ARTC is engaged with licenced users/landowners to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/substitution make-good solutions are not required.</p>	<p>Chapter 15: Groundwater Section 15.5.4 Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6.3</p>
76	76.0002	Private	Surface Water	Construction water supply	ARTC has not confirmed how it will be sourcing the water for construction. There is no reasonable justification for ARTC to claim they will be able to source construction water from private agreements.	ARTC to provide a construction water plan for public comment.	<p>Information is provided in Chapter 5: Project Description, Section 5.6.24 regarding construction water, specifically the estimated volumes required, water quality parameters, potential sources, access and reliability.</p> <p>Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan, to be finalised prior to the commencement of construction. A detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	<p>Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements</p>
76	76.0003	Private	Landscape and Visual Amenity		Draft EIS says Pittsworth will not be 'directly impacted' despite large infrastructure proposed to be built nearby the town that would change and obscure views. An embankment is proposed that can be clearly seen from Viewpoint 17. There is no attempt to avoid, mitigate or manage this in the EIS.	ARTC to propose measures to avoid, mitigate or manage the impact of the embankment on the landscape and visual amenity at Pittsworth.	<p>The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of the potential alternative options that may have been considered in the vicinity of Pittsworth.</p> <p>The LVIA assessment notes that the potential magnitude of effect of the Project on Viewpoint 17 (now 22) during operation is High.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design.</p> <p>Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to Detailed Design and liaison with relevant land owners and managers.</p> <p>ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community.</p> <p>As noted in Section 2.9.3 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95</p>
76	76.0004	Private	Social Impact Assessment		Project has already divided the town of Pittsworth with people living close to the alignment anxious of the noise, property value and amenity impacts and people further south hopeful of the imminent prosperity from the construction phase. Not training activities or community outreach activities to upskill Pittsworth locals have occurred that would allow locals to take the necessary roles for construction of Inland Rail.	Deliver training activities and community outreach activities to upskill Pittsworth locals and ensure the town benefits from the project.	<p>The submission describes a diversity of views on the Project. The potential for effects on community cohesion is noted in Appendix X: Social Impact Assessment, Section 7.1.8. Community engagement and community investments to help strengthen the community's ability to adapt to stresses are outlined in Section 8.2 and 8.5.6 respectively.</p> <p>Section 8.5.6 of Appendix X: Social Impact Assessment outlines the Community Wellbeing Plan to be provided by the Project, which will include projects which support community cohesion and resilience, e.g. community events, arts and cultural programs, or skills training for volunteers and community organisations. ARTC has also commissioned an independent survey of community wellbeing and quality of life metrics called "Living in Place", to understand community values across the Social Impact Assessment (SIA) study Area, including experiences and priorities to enhance local liveability.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 states 'ARTC is committed to ensuring that SIA study area residents will benefit from employment in the Project's construction, including residents who have the relevant skills and experience to take up employment opportunities, and those who will gain skills as part of Inland Rail Skills Academy initiatives or through on-the-job training.'</p> <p>As at 30 June 2021, Inland Rail Skills Academy (Appendix X: Social Impact Assessment, Section 8.3.2) has implemented preliminary training and business capacity building strategies in Toowoomba which is within a 35 minute drive of Pittsworth. Inland Rail Skills Academy will continue to deliver training programs including programs in communities across the SIA study area, including Pittsworth and at locations accessible to Pittsworth locals. As noted in Appendix X: Social Impact Assessment, Section 8.3.2, following Project approval, the Contractor will implement a program for apprenticeships, traineeships and facilitation of industry accreditation to support employment into Inland Rail projects and other major regional industries.</p> <p>Appendix X: Social Impact Assessment, Section 8.1 has been updated to reflect the most recent training and development initiatives.</p>	<p>Appendix X: Social Impact Assessment Section 7.1.8 Section 8.1 Section 8.2 Section 8.3.2 Section 8.5.6</p>
76	76.0005	Private	Flora and Fauna	Koala	Reconsider railway fencing and koala crossings. Consider consulting with the wildlife carer near Millmerran about a new location to release koalas.	ARTC's proposal to fence the railway with standard rural fencing will allow koalas to pass under the fence and make a mockery of koala crossings. There is a wildlife carer near Millmerran who releases koalas in close proximity to the proposed alignment.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design stage. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy)</p> <p>Appendix P: Fauna Connectivity Strategy, Section 6, proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTM's Fauna Sensitive Transport Infrastructure Delivery manual (DTMR 2024). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with key stakeholders including conservation groups during the Detailed Design stage. Initiatives outlined in this submission can be further investigated during the Detailed Design stage prior to construction commencing.</p>	<p>Appendix E: Consultation Report Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy</p>
76	76.0006	Private	Flora and Fauna		Consider an alternative alignment to avoid impacting Condamine Earless dragon habitat	The Condamine Earless dragon is endemic to the Condamine Floodplain and predominantly occupies small parcels of native vegetation on roadside reserves which would be significantly impacted by the sections of the alignment that run along the Gore highway.	<p>The Project footprint has been subject to historical disturbance/clearing and one third of its length is located within brownfield (areas already subject to development). The remaining greenfield portions of the Project footprint extend largely through areas subject to historical and current agricultural land uses. The conservative nature of the assessment ensured that the maximum potential impact to species was determined to guide the impact assessment and future Project direction in relation to mitigation strategies.</p> <p>Clearing of vegetation will be restricted to the minimum required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. The nominal rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainages and rail maintenance access roads. Habitat for threatened species (including the Condamine earless dragon) has been avoided wherever possible. (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report). To ensure that Project permeability is maintained, 22 bridge structures are proposed that will maintain habitat connectivity across the Project.</p> <p>Where impacts to threatened species habitat cannot be avoided, mitigation and management measures will be implemented. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the Construction Works and Operations stages. Impact mitigation will include pre-clearance surveys prior to disturbance. Management and mitigation measures to protect vulnerable and endangered species are proposed in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>In instances where a significant residual impact as identified by the relevant EPBC Act and NC Act significant assessment criteria, biodiversity offsets will be secured (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC will provide biodiversity offsets in accordance with the relevant state or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Environmental Offset Delivery Strategy.</p>	<p>Chapter 24: Draft Outline environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix Q: Environmental Offset Delivery Strategy</p>
76	76.0007	Private	Flora and Fauna	Survey effort/field investigation data	The vast majority of field studies took place during drought conditions, meaning the results are not representative of the actual biodiversity present in the region.	Nil.	<p>Additional field work has been undertaken across the entire project footprint to inform the revised draft EIS and present ground truthed information. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna.</p> <p>The full survey reports are available in Appendix I of Appendix L: Terrestrial and Aquatic Ecology Technical Report, and Appendix O: Matters of National Environmental Significance.</p>	<p>Chapter 11: Flora and Fauna Section 11.3 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Section 4</p>
76	76.0008	Private	Noise and Vibration	Operational rail noise	Impact of noise at Pittsworth has been understated because the rail will be elevated and modelling only considered noise impacts of trains 1800 m long. Trains up to 3200 m long are expected to eventually use the rail, leading to a significant increase in average noise levels and most likely making several other houses eligible for mitigation. ARTC's plans for sound barriers are tentative.	ARTC should commit to sound mitigation barriers for Pittsworth where possible and providing the public and residents with the opportunity to comment on the specifications of any proposed sound mitigation measures' to install property treatments concurrently with the rail, such that all treatments are finished prior to the first train running. ARTC be required to treat all properties where there will be noise exceedances based on the World Health Organisation's environmental noise guidelines.	<p>The current design only allows for 1,800 m long trains to utilise Inland Rail, therefore the assessment only considers trains of 1,800 m length. This is further detailed in Chapter 5: Project Description, Section 5.2.25.4.1 and as it relates to the operational railway noise assessment in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 1.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. A concept noise barrier has been included in Pittsworth (Section 17.4). There will be engineering, further acoustic assessment works (including noise modelling), and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All mitigation measures will be in place prior to the commencement of Inland Rail operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The Interim Guideline does not require ARTC to provide noise mitigation to comply with the WHO guideline. The WHO guideline is specifically written for Europe and the WHO guideline does not form part of contemporary rail noise policy in Australia. The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>To provide an illustration of how noise walls could look like, concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2.22, has been updated to include an artists impression showing the potential for mitigation measures in this location, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p>	<p>Chapter 5: Project Description Section 5.24.1 Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4 Chapter 16: Noise and Vibration Section 16.10 Appendix K: Landscape and Visual Impact Assessment Section 8.2.22 Section 11.2 Table 95 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17 Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
76	76.0009	Private	Land Use and Tenure	Severance of agricultural land	The alignment requires up to 580 ha of strategic cropping land to be resumed. Strategic cropping land is scarce, occupying only 2% of Queensland.	ARTC to reassess the alignment with special attention paid to the future food security of Queensland.	<p>Chapter 8: Land Use and Tenure, Section 8.5.1 and Table 8-29 provide an assessment of impacts on strategic cropping areas. The permanent footprint of the Project will affect approximately 3,329.23 ha of mapped strategic cropping areas within the Darling Downs regional planning area, which is representative of 0.027 per cent of strategic cropping areas within the region. The permanent footprint will also impact 52.94 ha of strategic cropping areas within the South East Queensland regional planning area, which represents less than 0.01 per cent of these areas within the region. RPI Act Statutory Guideline 03/14 – Carrying out resource activities in the strategic cropping area prescribes a 2 per cent threshold of permanent impact to strategic cropping area on an individual property to determine whether a resource activity will result in a material impact. The Project will impact significantly less than 2% of mapped strategic cropping areas within either of the relevant regional planning areas, and accordingly does not have a material impact on strategic cropping areas.</p> <p>Chapter 8: Land Use and Tenure, Section 8.6 identifies that with respect to priority agricultural areas and strategic cropping areas, given the unique nature of these areas, it is virtually impossible to offset the impact on these areas, or provide land-based compensation for the land take. In accordance with the Acquisition of Land Act 1967 (Qld), compensation will be negotiated between the constructing authority, ARTC, and the affected landowner if areas are compulsorily acquired. ARTC have land acquisition powers through negotiation, but not the ability to compulsorily acquire land. The consideration of partial or full acquisition of these areas will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine appropriate compensation arrangements.</p> <p>It is noted in Chapter 8: Land Use and Tenure, Table 8-46: Project's Consistency with the relevant State Planning Policy State Interests that the Project will use the existing South Western Line and Millmerran Branch Line rail corridors, where possible, to minimise adverse impacts to agricultural land uses including the loss of agricultural land (including strategic cropping land).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering. construction and operating costs. multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6 Table 8-29 Table 8-46 Appendix E: Consultation Report</p>
76	76.0010	Private	Social Impact Assessment	Property Devaluation	The draft EIS acknowledges that the community is very concerned about the value of properties along the alignment but ARTC considers property values will be affected by other market forces such as agricultural commodity prices so they cannot be held to account. The submitter argues that agricultural commodity prices will not affect property values in townships along the alignment. The submitter also cites studies into property prices near rail identify that property values can increase if there are 'access benefits' and decrease where the rail creates nuisance (noise impacts, etc.).	ARTC to compensate landowners for property impacts.	<p>Appendix X: Social Impact Assessment, Section 7.1.9 notes that property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres. All relevant research the revised draft EIS team could identify is presented within Appendix X: Social Impact Assessment.</p> <p>The Project has committed to a wide range of environmental mitigation and management measures to minimise noise impacts, impacts on scenic amenity and changes to connectivity which could otherwise affect property values. Compensation provisions under the Acquisition of Land Act 1967 (Qld) apply only to compensation for acquisition of land.</p>	<p>Appendix X: Social Impact Assessment Section 7.1.9</p>
76	76.0011	Private	Stakeholder engagement	Private groundwater bore/s	ARTC has not consulted with submitter on potential impacts to their groundwater bores despite the issue being raised at a public meeting. Information presented in the draft EIS about the location of bores that were studied was in Easting and Northing rather than the standard latitude and longitude.	ARTC to consult with submitter on potential Project impacts (and mitigation measures, if required) on groundwater bores.	<p>Since the draft EIS, ARTC conducted an additional groundwater bore survey, between December 2021 to April 2022, to better inform a groundwater management strategy (see Section 15.5.4 of Chapter 15: Groundwater). All directly impacted landowners were contacted by email and invited to complete a groundwater survey. A total of 74 surveys were completed, identifying additional registered and unregistered groundwater bores that may be potentially impacted by the Project. Groundwater bore management will be addressed on a case-by-case basis.</p> <p>The results of this engagement has informed the development of a make-good strategy to address the Project's potential impact to any privately-owned water assets. Chapter 15: Groundwater details how the Project will address groundwater, including the provision of construction water required for construction. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	<p>Chapter 15: Groundwater Section 15.5.4 Appendix B5: Construction Water Requirements Appendix E: Consultation Report Section 5.4</p>
76	76.0012	Private	Stakeholder engagement		Various issues are raised at community meetings such as property values, noise impacts, level crossing wait times, and barriers for local business involvement in construction but ARTC takes no action to address them.	ARTC to address issues raised at community meetings.	<p>The Stakeholder Engagement Chapter notes that the consultation approach for the Project is guided by the International Association of Public Participation (IAP2)-engagement principles - also referred to as core values, which define the expectations and aspirations of the community engagement process. Chapter 6 shows how ARTC's engagement process is modelled on the IAP2 public participation spectrum, which defines the public's role in any community engagement program and sets out the promise being made to the public at each participation level. It details ARTC's engagement activities in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints.</p> <p>In response to the specific points listed in the submission:</p> <ul style="list-style-type: none"> Property value - ARTC is unable to provide advice on individual property values. The saleability or value of a property is determined by a seller and a buyer based on a range of factors besides proximity to roads, rail or other infrastructure. There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property. Noise - ARTC shared the results of the noise modelling and potential mitigation strategies with sensitive receivers. As noted in Appendix T1: Hydrology and Flooding, ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project. The Project has also presented at both the Inner Darling Downs (IDD) and Southern Darling Downs (SDD) Community Consultative Committee's (CCCs) regarding noise, responding to all questions from the floor. Level crossing wait times - ARTC acknowledges that there will be wait times at level crossings; however, as the number and configuration of trains is subject to market demand and operators, it is not possible to provide specific advice at this point in time. Business involvement. ARTC will ensure the development and implementation of an Australia Industry Participation Plan focusing on opportunities for involvement by local business in construction and operation of the Project. ARTC will continue to engage with Toowoomba and Surat Basin Enterprise (TSBE), Chambers of Commerce and local business groups/associations (refer to Table 6-6 Chapter 6: Stakeholder engagement). 	<p>Chapter 6: Stakeholder Engagement Appendix E: Consultation Report Section 2 Section 5</p>
76	76.0013	Private	Hazard and Risk		Additional safeguards are required if dangerous goods are to be transported on the railway considering the risk of train collisions, particularly for freight trains operating on a railway with 37 level crossings.	Restrictions should apply to cargo that is too dangerous to carry on a vehicle travelling at high speed with no ability to stop suddenly.	<p>The National Transport Commission's Australian Code for the Transport of Dangerous Goods by Road & Rail provides the national standard and requirements for transporting dangerous goods by both road and rail. The Code specifies classification categories for all dangerous goods and hazardous materials and provides details on the minimum construction and testing requirements for packaging, containers or tanks that materials must be transported in. All Rail Operators who wish to access and use the Inland Rail network will need to demonstrate compliance with the Code.</p> <p>Further to this, the transport of dangerous goods by rail is regulated in Queensland through Chapter 14 (Transporting dangerous goods by rail) of the <i>Transport Infrastructure Act 1994</i> and the Transport Infrastructure (Dangerous Goods by Rail) Regulation 2018. Control measures proposed for the transportation of dangerous goods along the Border to Gowrie Section of Inland Rail are specified in Section 21.6.2, Table 21-16 of Chapter 21: Hazard and Risk.</p>	<p>Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16</p>
76	76.0014	Private	Hazard and Risk		Fencing standards proposed for the project are insufficient to prevent ingress of children, wildlife and some livestock.	ARTC engaged with stakeholders should use chain link fences adjacent to school bus stops and townships' to commit that no landowners will be worse off and landowners will be compensated for the effects on their business of losing fences due to storm water movement. Fencing standards for the rest of the corridor should be upgraded in consultation with local councils and agricultural industry groups. This should not detract from the rights of the individual landowner to negotiate superior fencing where required.	<p>Fencing will be provided for the majority of the rail corridor to limit access to the Project's rail alignment. Fencing will act to protect adjoining lands from trespass and to prevent livestock from gaining access to the railway. Fencing is to extend between the corridor and private lots or property adjoining the railway. Property or land use-specific fencing considerations will be discussed with relevant landowners as part of the detailed design process.</p> <p>As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au).</p> <p>Where ARTC engaged with stakeholders propose to construct within the Queensland Rail corridor for all returned works (South Western Line and Millmerran Branch Line), ARTC engaged with stakeholders will comply with Queensland Rail standards; this includes new and replacement fencing. All existing fencing is proposed to be removed and replaced.</p> <p>Where superior fencing is required (for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur) a 1.8 m chain link boundary fence may be provided.</p> <p>Fencing of the rail corridor has not been included in the revised reference design across floodplain areas because landowners have advised that fencing can</p> <ol style="list-style-type: none"> increase the risk of debris being caught and causing blockages; and be washed away in flood events causing downstream impacts. Instead, guideposts or other alternative means of rail corridor boundary protection will be installed in order to demarcate the rail corridor and prevent access to the rail corridor. The track elevation through these areas will also act as a deterrent to trespass or livestock access to the railway, where this may otherwise occur. <p>Maintaining effective fauna movement across the rail corridor has been an important design consideration for the Project. A preliminary fauna movement provision and fencing strategy has been prepared for the Project and is included in Appendix P: Fauna Connectivity Strategy. The fencing strategy for the Project is discussed in Section 5.4.12 of Chapter 5: Project Description.</p>	<p>Chapter 5: Project Description Section 5.4.12 Appendix P: Fauna Connectivity Strategy</p>
76	76.0015	Private	Traffic and Transport	Level crossing	Building level crossings is against the policy of the Office of the National Rail Safety Regulator and Qld Dept of Transport and Main Roads. Level crossings impact on the response time for emergency services and are an inconvenience for the public waiting for slow moving trains. The draft EIS does not account for the forecast increase in train lengths up to 3600 m or different speeds of different freight services at different chainages.	Select an alignment with fewer public road interfaces or build grade separated crossings.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7</p>
77	77.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:	<p>ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecasted construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran, as per Section 5.6.4 of Chapter 5: Project Description.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>An engagement session with the community was held in October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further details on how ARTC will be managing workforce accommodation is contained in the Social Impact Management Plan (detailed in Appendix X: Social Impact Assessment). Non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to commencing accommodation establishment works.</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix X: Social Impact Assessment</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
77	77.0002	Private - Turallin Workers	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Ellerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Projects safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in the footprint at Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
77	77.0003	Private - Turallin Workers	Air Quality		<p>Location lacks services. Should generators be required to supply power this would create greenhouse emissions.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>
77	77.0004	Private - Turallin Workers	Noise and Vibration		<p>Proposed location lacks services. Should generators be required to supply power, this would create noise.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6</p>
77	77.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	<p>a. Impact on properties, variation of property values.</p> <p>b. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
77	77.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
77	77.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the Contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation facilities at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20.5.1</p> <p>Section 20.6</p>
77	77.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
77	77.0009	Private - Turallin Workers	Flora and Fauna		A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:	<p>Chance of Flora & Fauna displacement</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4, of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined during detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 11: Flora and Fauna</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
78	78.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4, of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>An engagement session with the community on non-resident workforce accommodation was held in October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further details on how ARTC will be managing workforce accommodation is contained in the Social Impact Management Plan (detailed in Appendix X: Social Impact Assessment Section 7.3). Non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to commencing accommodation establishment works.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Table E-56</p> <p>Appendix X: Social Impact Management Plan</p> <p>Section 8.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
78	78.0002	Private - Turallin Workers	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Eilersie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
78	78.0003	Private - Turallin Workers	Air Quality		<p>Location lacks services. Should generators be required to supply power this would create greenhouse emissions.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have noted community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for establishing non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project. As mentioned in Sections 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>
78	78.0004	Private - Turallin Workers	Noise and Vibration		<p>Proposed location lacks services. Should generators be required to supply power, this would create noise.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.37/38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6</p>
78	78.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	<p>a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
78	78.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>
78	78.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas. These are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6</p>
78	78.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
78	78.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4, of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined during detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.35, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to camp infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan</p>
79	79.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4, of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecasted construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>An engagement session with the community on non-resident workforce accommodation facilities was held in October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further details on how ARTC will be managing workforce accommodation is contained in the Social Impact Management Plan (detailed in Appendix X: Social Impact Assessment Section 7.3). Non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to commencing accommodation establishment works.</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11.6 Appendix X: Social Impact Assessment Section 7.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
79	79.0002	Private - Turallin Workers	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Etherslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023, ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
79	79.0003	Private - Turallin Workers	Air Quality		<p>Location lacks services. Should generators be required to supply power this would create greenhouse emissions.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>
79	79.0004	Private - Turallin Workers	Noise and Vibration		<p>Proposed location lacks services. Should generators be required to supply power, this would create noise.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the Border to Gowrie revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6</p>
79	79.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	<p>a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
79	79.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>
79	79.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Eilersie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas. These are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6</p>
79	79.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
79	79.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan</p>
80	80.0001	Private	Noise and Vibration		Noise from construction and operation of the project will cause sleep deprivation and anxiety for the submitter who is a resident of a directly-affected township.	<p>Double glaze all windows at affected households install soundproofing fence/barrier move existing house and outbuildings re-establish tank and fit filter system to address dust and other airborne pollutants establish electric gates for easy access at front/back entrances</p>	<p>ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the Construction Works and Operations stages of the Project. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment.</p> <p>The noise and vibration emissions from the construction and operation of the Project have been assessed against criteria and limits designed to minimise the potential for impacts to sensitive receptors. Sleep disturbance impacts are discussed in Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. A range of feasible noise and vibration mitigations are provided in Chapter 16: Noise and Vibration, Section 16.10, and the associated technical reports Appendix V: Noise and Vibration Assessment: Construction and Road Traffic, Section 7, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.</p> <p>The mitigations are based on the anticipated worst-case noise and vibration impacts at the most affected sensitive receptors, including the residences located within a relatively close distance of the Project. The development and implementation of such measures will be subject to further detailed studies and verification of noise and vibration levels during construction works and within six months of the commencement of railway operations on the Project.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1 Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
80	80.0002	Private	Noise and Vibration		Ground borne noise and vibration from blasting, machinery and/or piling will impact on the submitter's house and cause stress and anxiety in the residents.	Restump the house relocate the house back on the block restump and establish new laundry and take with water filtration system implement a permanent soundproof fence/barrier.	<p>Section 13 of Appendix W: Noise and Vibration Assessment - Railway Operations has assessed the potential vibration impacts of the railway operations to sensitive receptors. The assessment identified the minimum offset distance from the outer rail of the Project where the ground-borne vibration criteria would be expected to be achieved. Based on the highest estimated off-set distance for the night-time railway operations for the Design Year 2040 scenario, an estimated off-set distance of 12 m from the outer rail would be required to achieve ground-borne vibration criteria. A review of the Project alignment identified that all sensitive receptors, excluding those expected to be acquired by the Project, would be outside of the 12 m off-set distance from the outer rail of the Inland Rail track. On this basis, the railway operations on the Project rail tracks would achieve the ground-borne vibration assessment criteria at all sensitive receptors. Further assessment of impacts is recommended during the Detailed Design stage to verify the screening assessment outcomes.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>All reasonable and practicable measures will be taken to minimise noise and vibration impacts on the community during the Construction Works stage. Construction noise and vibration impacts will be temporary and noise impacts at each receptor will reduce due to increases in distance as the works progress along the alignment. Construction noise and/or vibration monitoring will be undertaken if required to assess compliance of construction activities against adopted criteria.</p> <p>Section 16.10 of Chapter 16: Noise and Vibration discusses the mitigation measures for blasting. Vibration impacts from blasting will be assessed once the locations and depths of blasting and the charges to be used are confirmed. This assessment will confirm the receptors/locations at which blasting impacts are expected to exceed the Project blasting vibration performance criteria as specified in the Outline EMP, if at all. If blasting is deemed necessary for construction, appropriately trained and licenced shot firers will be engaged to undertake the blasting activities in accordance with Qld's regulatory requirements. In addition, ARTC will provide regular updates to the local community to ensure that residents are kept informed when blasting activities will be carried out. In relation to blasting activities, the following measures to mitigate blasting impacts are suggested where practicable:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. Airblast will be monitored to verify that the specified limits are not exceeded. Ground vibration will also be measured where required. Blasting monitoring shall be undertaken in accordance with CoP Vol 2 and AS 2187.2. The equipment used for monitoring must be calibrated annually by a NATA accredited testing facility or approved manufacturer's facility <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
80	80.0003	Private	Noise and Vibration		Noise from increased road traffic and realigning the highway closer to the submitter's home will create a nuisance, disrupting sleep and cause anxiety for the residents.	Move the house back on the block double glaze and sound proof the front fence provide suitable accommodation for residents while the house is being moved implement permanent soundproof fence/barrier.	<p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during both construction and railway operations. The revised draft EIS assesses the impacts construction and operational road traffic may have on local communities.</p> <p>Operational road traffic noise impacts have been predicted based on a preliminary road traffic noise assessment and conservative assumptions, as detailed Section 8, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. Operational road traffic noise mitigation measures will be determined on a receptor-by-receptor basis following a detailed operational road traffic noise assessment during detailed design. The noise mitigation hierarchy detailed in the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 1: Road Traffic Noise has been recommended for the management and mitigation of operational road traffic noise impacts.</p> <p>As detailed in Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 6.1, construction road traffic noise has been assessed under the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 – Construction Noise and Vibration. Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 6.1, address the construction road traffic assessment and predicted impacts.</p> <p>Additional noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 and Section 8 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 1, reasonable and practical noise mitigation and management measures have been presented in Section of Chapter 24: Draft Outline Environmental Management Plan.</p> <p>ARTC understands noise could be a source of annoyance and potentially result in sleep disturbance and are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 6.1</p> <p>Section 7</p> <p>Section 8</p>
80	80.0004	Private	Noise and Vibration		Vibration from construction works will cause physical damage to the submitter's house by undermining load-bearing walls and piers.	Move and restump the house before commencing construction move outbuildings back on block double glaze windows construct carport for back entrance.	<p>ARTC acknowledges concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during the Construction Works stage of the Project. The revised draft EIS construction vibration assessment has considered the worst-case construction scenarios and has predicted that construction of the Project has the potential to result in exceedances of nominated construction vibration criteria at vibration sensitive receptors.</p> <p>Construction vibration impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. Construction vibration impacts predicted to each sensitive receptor are based on the shortest distance separating construction works to each receptor. The revised draft EIS has made preliminary but conservative predictions of potential construction vibration impacts, recommended measures to mitigate construction vibration impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise and vibration assessment (Section 16.10 of Chapter 16: Noise and Vibration, Section 6.2 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic).</p> <p>The EIS has identified the need for mitigation and management of construction vibration impacts, to be informed by a detailed construction vibration assessment based on a detailed construction methodology during detailed design. The detailed construction vibration assessment will assess potential construction vibration impacts to sensitive receptors in greater detail.</p> <p>Prior to construction commencing, the construction Contractor, will undertake dilapidation surveys on selected properties along the Project alignment, to assess structural integrity of buildings and related infrastructure. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>Mitigation measures for construction noise and vibration impacts are detailed in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 7</p>
80	80.0005	Private	Social Impact Assessment		Increased heavy vehicle traffic will increase road and traffic safety risks, especially directly outside the submitter's house. Submitter has support people attend her home and is concerned the project will negatively affect access to her home and parking.	Supply safe access to home via installing automatic electric gates at front and back entrances provide a clean thoroughfare through permit to permit safe front entrance and exit from rear of property transplant fruit trees reinstall side carport and support carport at rear entrance provide safe parking at front of home for support workers at both entrance and exit, if possible.	<p>ARTC notes that the reference design does not necessitate the need to alter any access arrangements for this property. The reference design includes a proposal to extend the highway; however, the Section outside this property would be posted at 60 kilometres per hour. ARTC notes there is back lane access to this property.</p> <p>Submission refers to current road noise and Project potential to exacerbate noise, and concerns about road safety.</p> <p>Where noise exceedances are identified, the Project will be required to provide noise mitigation measures. In Year10 this may include a noise wall, and/or architectural treatments at sensitive receptors to reduce noise levels to acceptable levels.</p> <p>The Project's Traffic Management Plan will need to consider speed limits and the safe operation of heavy vehicles associated with Project construction (refer to Chapter 24: Draft Outline Environmental Management Plan).</p> <p>Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>
80	80.0006	Private	Social Impact Assessment	Property Devaluation	The submitter's property will be impacted by excessive dust and debris, and nuisance noise from the project, thus devaluing the property.	Pay support people to maintain and clean air conditioning and solar panels on a regular basis limit speeds to 40 km via speed cameras install cameras at both ends of town limit or eliminate night-time shunting and train horn blowing install filter system on catchment and delivery side of water tank due to contamination by diesel trains and trucks, dust and debris during construction and afterwards assist in helping to make our home better rather than undermining its value.	<p>The revised draft EIS is unable to provide advice on individual property values. Appendix X: Social Impact Assessment, Section 7.1.9 notes that property values may be affected by a range of factors related or unrelated to the project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres.</p> <p>ARTC will implement the mitigation measures recommended in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS to maintain the amenity of noise-affected sensitive receptors. ARTC will also provide specific engagement mechanisms with residents of properties exposed to noise impacts, to ensure the potential for impacts on amenity is clearly explained, and where relevant, to obtain their inputs to the development of property-specific mitigation measures.</p> <p>The assessment of air quality provided as Appendix R: Air Quality Technical Report concluded that unmitigated air emissions from the construction of the Project pose a 'medium' risk of human health impacts and a 'medium' risk of dust deposition Appendix R: Air Quality Technical Report, Table 9.1). Recommended mitigation measures provided in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS include, in addition to detailed measures regarding the management of activities which may generate dust or emissions, developing an Air Quality Management Plan, as a component of the Construction Environmental Management Plan (CEMP). The Air Quality Management Plan will specify controls and procedures for the avoidance or minimisation of impacts relating to dust and emissions during construction, including monitoring requirements and complaint response procedures.</p> <p>There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, notes that an independent Community Relations Monitor will be appointed. The Community Relations Monitor's tasks will include, along with other relevant tasks, attending meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures, and providing support to stakeholders and communities that are facing change due to Inland Rail.</p> <p>The results of the air quality assessment of Project operations (Appendix R: Air Quality Technical Report, Section 6 and Section 7, Table 7.2 of the revised draft EIS) indicate that cumulative background plus Project air quality pollutants will be below guideline levels at all sensitive receptors. Additionally, assessment of the potential deposition of emissions in water tanks predicted that concentrations of potential contaminants would be significantly lower than Australian Drinking Water Guidelines (Appendix R: Air Quality Technical Report, Section 7.2).</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix R: Air Quality Technical Report</p> <p>Section 6</p> <p>Section 7</p> <p>Section 7.2</p> <p>Table 7.2</p> <p>Table 9.1</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 7.1.9</p>
80	80.0007	Private	Social Impact Assessment	Flood immunity	Project impacts on water drainage may lead to increased flood insurance premiums for the property.	Ongoing insurance compensation for increased premiums on insurance policies, should flood insurance increase as a result of the rail/road construction.	<p>As noted in the Appendix E: Consultation Report, Section 5.3, in June 2020, the Australian and Queensland governments established an Independent International Panel of Experts for Flood Studies (the Expert Flood Panel) in Queensland to provide advice on the flood models and structural designs developed by ARTC for Inland Rail in Queensland.</p> <p>The Expert Flood Panel released its draft report on 25 March 2021, and final report on October 2022. Following the release of the final report and as part of additional assessment and studies conducted for this revised draft EIS, ARTC has assessed all local catchments against the new Flood Impact Objectives (FIOs). The FIOs determine the acceptable parameters within which the Project can change or increase the existing flood conditions, including afflux, time of inundation, velocity, hazard and flow directions.</p> <p>Note that the FIO's have been carefully developed to account for the various receptors present in the floodplains, including dwellings, other buildings, infrastructure, and a range of land-use types. They recognise and reflect the sensitivity of these floodplain receptors with a view to appropriately minimising any changes in flood behaviour. At dwellings for example, which may be quite sensitive to changes in flood behaviour, the FIO target is to limit any flood level changes (afflux) to just 10 millimetres (1 centimetre).</p> <p>Additionally, in October 2022 ARTC undertook consultation with all landowners that were shown to have appreciable exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property. Property specific impacts were identified during the consultation sessions with the potentially impacted landowners (e.g. access, property specific observations and constraints) and the results recorded for incorporation when mitigations are applied in detailed design along with FIO application. Further details on the FIOs and mitigation measures are provided in Chapter 14: Hydrology and Geomorphology, Section 14.9. Further consultation with landowners will also be undertaken throughout the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.9</p> <p>Appendix E: Consultation Report</p> <p>Section 5.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
80	80.0008	Private	Air Quality		Project will generate dust, dirt and airborne pollutants that will contaminate water quality in tanks, negatively affect resident's health, require solar panels to be cleaned and maintained fortnightly/monthly.	Prior to commencing works, install a rainwater collection system with first flush devices and install a filtration system on water tank with feed to home kitchen.	<p>Whilst the construction and operation of the Project will result in emissions to air, the assessment of the Construction Works and Operations stages has determined that the impact to sensitive receptors, including the landholder's dwelling, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>The operational air quality assessment investigated the impact of emissions from the Project during construction and operation, and determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in the Chapter 12: Air Quality) for all pollutants.</p> <p>Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). The assessment of construction has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. These measures are expected to result in low or negligible impact significance of construction dust impacts to health and nuisance/amenity. On this basis, regular (fortnightly/monthly) cleaning and maintenance of solar panels are not expected to be required.</p> <p>In addition to assessing impacts on air quality at households, the assessment also investigated potential impacts to tank water quality during the operation of the Project (Section 12.3.3 of Chapter 12: Air Quality). This assessment was completed by predicting the deposition of pollutants of the roofs of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from the roof into a water tank.</p> <p>This assessment showed that the operation of the Project would not significantly impact tank water quality and that highest predicted pollutant concentrations in water tanks were over one thousand times lower than the guideline values prescribed by the <i>Australian Drinking Water Guidelines</i> (National Health and Medical Research Council and National Resource Management Ministerial Council 2022). As presented in Section 12.5 in Chapter 12: Air Quality, the assessment considered potential air contaminants as arsenic, cadmium, lead, nickel and chromium VI. Based on the results of the assessment and with the implementation of recommended mitigation measures, significant impacts to air quality or tank water quality at sensitive receptors are not expected.</p> <p>Further information on the assessment of construction dust impacts for the Project is available in Section 12.5.1 of Chapter 12: Air Quality. Section 12.6.3 of the Chapter presents the mitigation measures which have been recommended for the Construction Works and Operations stages of the Project. The recommended management and mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Based on the results of the assessment of potential impacts to tank water quality during the operation of the Project (Section 12.5.2 of Chapter 12: Air Quality), no treatment or mitigation measures such as first flush systems or filtration systems are required for rainwater tanks.</p> <p>ARTC are committed to continuing to engage with directly and indirectly impacted landowners to ensure any impacts are managed throughout construction and operation.</p>	<p>Chapter 12: Air Quality Section 12.3.3 Section 12.5 Section 12.5.1 Section 12.5.2 Section 12.6.3 Chapter 24: Draft Outline Environmental Management Plan</p>
80	80.0009	Private	Land Use and Tenure	Property Devaluation	Changes to property access and movement of highway to directly out front of the submitter's home will directly impact value of the property.	Assist in making dwelling as attractive as possible by installing a variety of property improvements (see submission for further details). Install speed cameras for traffic coming into town, ensure sufficient space for parking outside homes, ensure safe accessibility for all from both front and rear entrances.	<p>Chapter 8: Land Use and Tenure. Section 8.6.2 states that where land-use impacts are confirmed, individual property management measures will be developed in consultation with the landowner to reduce impacts to an acceptable and agreeable level. Management measures will include:</p> <ul style="list-style-type: none"> Individual property mitigation measures developed in consultation with landowners/occupants with respect to the development of detailed design and/or the management of construction on, or immediately adjacent to, private properties. The property mitigation measures will detailed required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures, as required. Consultation with landowners will be undertaken to ensure that owners and occupiers are informed about the timing and scope of activities in their area, particularly in relation to potential impacts to access, services, or farm operational arrangements. This consultation will be ongoing throughout construction. Feedback from landowner consultation, including agreed property mitigation measures, will be incorporated into property agreements (or similar), as appropriate. <p>The requirement for Project components outside of the Project footprint will be confirmed through the Detailed Design stage, as the construction approach is refined.</p> <p>As stated in Section 8.6.3 (Table 8-51) of Chapter 8: Land Use and Tenure, the detailed design for the Project will be developed to ensure that legal access for private properties is maintained.</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Construction Works stage process to develop and implement property-specific measures to avoid or minimise impacts that could affect property access (Section 8.6.3 of Chapter 8: Land Use and Tenure).</p>	<p>Chapter 8: Land Use and Tenure Section 8.6.2 Section 8.6.3 Table 8-51</p>
81	81.0001	Private	Noise and Vibration	Aquatic fauna	Noise from construction and operation of the project will cause sleep deprivation and anxiety for the submitter whose home is approx.60 metres from the railway.	Double glaze all windows at affected households install soundproofing fence/barrier	<p>ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the Construction Works and Operations stages of the Project. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment.</p> <p>The noise and vibration emissions from the construction and operation of the Project have been assessed against criteria and limits designed to minimise the potential for impacts to sensitive receptors. Sleep disturbance impacts are discussed in Section 6.1.5 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations, and relocation of any impacted structures, as required. vibration mitigations are provided in Chapter 16: Noise and Vibration, Section 16.10, and the associated technical reports Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 7, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.</p> <p>The mitigations are based on the anticipated worst-case noise and vibration impacts at the most affected sensitive receptors, including the residences located within a relatively close distance of the Project. The development and implementation of such measures will be subject to further detailed studies and verification of noise and vibration levels during construction works and within six months of the commencement of railway operations on the Project.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Railway Operations Construction and Road Traffic Section 6.1.5 Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>
81	81.0002	Private	Noise and Vibration		The submitter's house will not withstand impacts from ground borne noise and vibration generated from constructing the highway and railway.	Restump the house relocate the house back on the block restump and establish new laundry and tank with water filtration system implement a permanent soundproof fence/barrier.	<p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during the Construction Works stage.</p> <p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology (refer to Section 16.6 of Chapter 16: Noise and Vibration). Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the Detailed Design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p> <p>Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys prior to assess the structural integrity of buildings along the alignment in accordance with the assessment considerations outlined in Section 16.10 within Chapter 16: Noise and Vibration.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise community disruption in the Construction Works stage and through to operations.</p> <p>Mitigation measures for construction noise and vibration impacts are detailed in of Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 16: Noise and Vibration Section 16.6 Section 16.10 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 7</p>
81	81.0003	Private	Noise and Vibration		Noise from increased road traffic and realigning the highway closer to the submitter's home will create a nuisance, disrupting sleep and cause anxiety for the residents.	Move the house back on the block double glaze and sound proof the front fence provide suitable accommodation for residents during house moving period. Supply a new home or compensation to purchase a replacement home.	<p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during both construction and operational road traffic may have on local communities.</p> <p>Operational road traffic noise impacts have been predicted based on a preliminary road traffic noise assessment and conservative assumptions, as detailed Section 8, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. Operational road traffic noise mitigation measures will be determined on a receptor-by-receptor basis following a detailed operational road traffic noise assessment during detailed design. The noise mitigation hierarchy detailed in the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 1: Road Traffic Noise has been recommended for the management and mitigation of operational road traffic noise impacts.</p> <p>As detailed in Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 6.1, construction road traffic noise has been assessed under the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 – Construction Noise and Vibration. Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 6.1, address the construction road traffic assessment and predicted impacts.</p> <p>Additional noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 and Section 8 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 1, reasonable and practical noise mitigation and management measures have been presented in of Chapter 24: Draft Outline Environmental Management Plan.</p> <p>ARTC understands noise could be a source of annoyance and potentially result in sleep disturbance and are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Chapter 24: Draft Outline Environmental Management Plan Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6.1 Section 7 Section 8</p>
81	81.0004	Private	Noise and Vibration		Vibration from construction works will cause physical damage to the submitter's house by undermining load-bearing walls and piers.	Move and restump the house before commencing construction move outbuildings back on block double glaze windows construct carport for back entrance.	<p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction noise and vibration impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the Detailed Design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). It is premature to present specific property treatments when the railway noise and vibration levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys prior to assess the structural integrity of buildings along the alignment in accordance with the assessment considerations outlined in Section 16.10 within Chapter 16: Noise and Vibration.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise community disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 7</p>
81	81.0005	Private	Social Impact Assessment		Increased heavy vehicle traffic will increase road and traffic safety risks, especially directly outside the submitter's home.	Supply safe access to home via installing automatic electric gates at front entrance provide clean thoroughfare through property to permit safe entrance and exit from rear of property transplant fruit trees reinstall clothesline supply carport at rear entrance provide safe parking at the front of the house for support workers.	<p>Private access to individual properties will be temporarily disrupted during construction where the Project will result in the severance of driveways and informal private access roads to properties, or access is restricted where land is required temporarily for construction activities. Legal access to properties will be retained through the provision of alternative access roads, grade separation or a level crossing where appropriate. ARTC is consulting with affected land holders to determine appropriate measures to mitigate potential individual property access impacts (Appendix X: Social Impact Assessment, Section 7.1).</p> <p>If partial acquisition of the submitter's property was required they would be entitled to claim compensation for the loss of a legal interest in land or estate in land, in accordance with the Acquisition of Land Act 1967 (Qld). Compensation is assessed on an individual basis (Appendix X: Social Impact Assessment, Section 7.1.2).</p>	<p>Appendix X: Social Impact Assessment Section 7.1 Section 7.1.2</p>
81	81.0006	Private	Social Impact Assessment	Property Devaluation	The submitter's property will be impacted by excessive dust and debris, and nuisance noise from the project, thus devaluing the property.	<ul style="list-style-type: none"> pay support people to maintain and clean air conditioning and solar panels on a regular basis limit speeds to 40 km/h via speed cameras- install cameras both ends of town limit or eliminate night-time shunting and train horn blowing- install filter system on catchment and delivery side of water tank assist in making home better rather than undermining its value. 	<p>The revised draft EIS is unable to provide advice on individual property values. Appendix X: Social Impact Assessment, Section 7.1.9 notes that property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres.</p> <p>ARTC will implement the mitigation measures recommended in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS to maintain the amenity of noise-affected sensitive receptors. ARTC will also provide specific engagement mechanisms with residents of properties exposed to noise impacts, to ensure the potential for impacts on amenity is clearly explained, and where relevant, to obtain their inputs to the development of property-specific mitigation measures.</p> <p>The assessment of air quality provided as Appendix R: Air Quality Technical Report concluded that unmitigated air emissions from the construction of the Project pose a 'medium' risk of human health impacts and a 'medium' risk of dust deposition (Appendix R: Air Quality Technical Report, Table 9.1). Recommended mitigation measures provided in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS include, in addition to detailed measures regarding the management of activities which may generate dust or emissions developing an Air Quality Management Plan, as a component of the Construction Environmental Management Plan (CEMP). The Air Quality Management Plan will specify controls and procedures for the avoidance or minimisation of impacts relating to dust and emissions during construction, including monitoring requirements and complaint response procedures in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Table 9.1 Appendix X: Social Impact Assessment Section 7.1.9</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
81	81.0007	Private	Flooding	Flood immunity	Project impacts on water drainage may lead to increased flood insurance premiums for the property.	Ongoing insurance compensation for increased premiums on insurance policies, should flood insurance increase as a result of the rail/road construction.	<p>As noted in the Appendix E: Consultation Report Section 5.3, in June 2020, the Australian and Queensland governments established an Independent International Panel of Experts for Flood Studies (the Flood Panel) in Queensland to provide advice on the flood models developed by ARTC for Inland Rail in Queensland.</p> <p>The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Flooding & Hydrology Technical Report - Volume 1 (e.g. Section 5.5.3 for Gowrie Creek, Section 6.5.3 for Westbrook/Dry Creeks and so on). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Additionally, in October 2022, ARTC undertook consultation with all landowners that were shown to have appreciable exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property. A total of 96 private landowners were identified for this consultation program, as outlined in Appendix E: Consultation Report, Section 5.3. Property specific impacts were discussed during the consultation sessions with the potentially impacted landowners (e.g. access, property specific observations and constraints) and any observations and outcomes recorded. These will inform further mitigation in the Detailed Design stage. Further details on the FIOs and mitigation measures are provided in Chapter 14: Hydrology and Geomorphology, Section 14.9. Further consultation with landowners will also be undertaken throughout the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8</p> <p>Section 14.11</p> <p>Appendix E: Consultation Report</p> <p>Section 5.3</p>
81	81.0008	Private	Air Quality		Project will generate dust, dirt and airborne pollutants that will contaminate water quality in tanks, negatively affect resident's health, require solar panels to be cleaned and maintained fortnightly/monthly, and evaporative cooler battens/filters will need to be cleaned or replaced.	Prior to commencing works, install a rainwater collection system with first flush devices and install a filtration system on water tank with feed to home kitchen.	<p>Whilst the construction and operation of the Project will result in emissions to air, the assessment of the Construction Works and Operations stages has determined that the impact to sensitive receptors, including the landholder's dwelling, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>The air quality assessment investigated the impact of emissions from the Project during construction and operation. The operational air quality assessment determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in Chapter 12: Air Quality) for all pollutants.</p> <p>Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). The assessment of construction has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. These measures are expected to result in low or negligible impact significance of construction dust impacts to health and nuisance/amenity. On this basis, regular (fortnightly/monthly) cleaning and maintenance of solar panels are not expected to be required.</p> <p>In addition to assessing impacts on air quality at households, the assessment also investigated potential impacts to tank water quality during the operation of the Project (refer to Section 12.3.3 of Chapter 12: Air Quality). This assessment was completed by predicting the deposition of pollutants on the roofs of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from the roof into a water tank. This assessment showed that tank water quality would not be significantly impacted by the operation of the Project and that highest predicted pollutant concentrations in water tanks were over one thousand times lower than the guideline values prescribed by the <i>Australian Drinking Water Guidelines</i> (National Health and Medical Research Council and National Resource Management Ministerial Council 2022). As presented in Section 12.3.3 of Chapter 12: Air Quality, the assessment considered potential air contaminants as arsenic, cadmium, lead, nickel and chromium VI. Based on the results of the assessment and with the implementation of recommended mitigation measures, significant impacts to air quality or tank water quality at sensitive receptors are not expected.</p> <p>Further information on the assessment of construction dust impacts for the Project is available in Section 12.5.1 of Chapter 12: Air Quality. Section 12.6.3 of the Chapter 12: Air Quality presents the mitigation measures which have been recommended for the Construction Works and Operations stages of the Project. The recommended management and mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Based on the results of the assessment of potential impacts to tank water quality during the operation of the Project (refer to Section 12.6.3 of Chapter 12: Air Quality), no treatment or mitigation measures such as first flush systems or filtration systems are required for rainwater tanks.</p>	<p>Chapter 12: Air Quality</p> <p>Section 12.7</p> <p>Section 12.8</p> <p>Section 12.3.3</p> <p>Section 12.5.2</p> <p>Section 12.6.3</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
81	81.0009	Private	Land Use and Tenure	Property Devaluation	Changes to property access and movement of highway to directly out front of the submitter's home will directly impact value of the property	Assist in making dwelling as attractive as possible by installing a variety of property improvements (see submission for further details). Install speed cameras for traffic coming into town, ensure sufficient space for parking outside homes, ensure safe accessibility for all from both front and rear entrances.	<p>Chapter 8: Land Use and Tenure, Section 8.6.2 states that where land-use impacts are confirmed, individual property management measures will be developed in consultation with the landowner to reduce impacts to an acceptable and agreeable level. Management measures will include:</p> <ul style="list-style-type: none"> Individual property mitigation measures developed in consultation with landowners/occupants with respect to the development of detailed design and/or the management of construction on, or immediately adjacent to, private properties. The property mitigation measures will detailed required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures, as required. Consultation with landowners will be undertaken to ensure that owners and occupiers are informed about the timing and scope of activities in their area, particularly in relation to potential impacts to access, services, or farm operational arrangements. This consultation will be ongoing throughout construction. Feedback from landowner consultation, including agreed property mitigation measures, will be incorporated into property agreements (or similar), as appropriate. <p>The requirement for Project components outside of the Project footprint will be confirmed through the Detailed Design stage, as the construction approach is refined.</p> <p>As stated in Section 8.6.3 (Table 8-51) of Chapter 8: Land Use and Tenure, the detailed design for the Project will be developed to ensure that legal access for private properties is maintained.</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Construction Works stage process to develop and implement property-specific measures to avoid or minimise impacts that could affect property access (Section 8.6.3 of Chapter 8: Land Use and Tenure).</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.6.2</p> <p>Section 8.6.3</p> <p>Table 8-51</p>
82	82.0001	State Agency	Editorial		Services has nil response to the draft EIS	nil.	Noted that Infrastructure and Economic Resilience falls within the Department of State Development, Infrastructure, Local Government and Planning and has nil response to the draft EIS.	N/A
83	83.0001	State Agency	Editorial		Department of Health's Capital and Asset Services Branch reviewed, confirmed there are no QH assets impacted and has no further comment.	nil.	Noted that Department of Health has reviewed the Project materials including the alignment and had no further comment on the proposal at that time.	N/A
84	84.0001	Private	Economics		The project's economic impact assessment does not address TOR items 11.21(e) and 11.141. The assessment of the project's impact on the agricultural industry does not consider the value of individual commodities produced per lot or the value-added activities which contribute to the gross value of agricultural production in the region. The dEIS suggests an assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design.	<p>The OCG should:</p> <ol style="list-style-type: none"> not accept the draft EIS as the final EIS request additional information from ARTC to be included in a revised draft EIS to be released for public comment the requested additional information in the revised draft EIS to be released for public comment should include: <ul style="list-style-type: none"> a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government. 	<p>In response to public consultation, ARTC has made a number of updates to the draft EIS, including updates to the Project alignment. This has resulted in a number of updates in the revised draft EIS, including to the calculated potential loss for rural communities. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. <p>Impacts to agricultural land will be reduced from the implementation of the mitigation methods developed within Section 3 Part B: Draft Soil Management Plan in Appendix AB: Earthworks Strategy and Draft Soil Management Plan.</p> <p>A Soil Management Plan has been created as a component of the CEMP as a mitigation method which has been developed to reduce impacts to agricultural land. The Soil Management Plan outlined in Chapter 24: Draft Outline Environmental Management Plan includes the following procedures and protocols relevant to potential impacts on land resources:</p> <ul style="list-style-type: none"> Soil/land conservation objectives for the Project to minimise impacts on soil conservation plans and viable productive land Management of problem soils Minimising exposure of dispersive subsoils through methods such as staging construction disturbance, topsoil replacement or rehabilitation immediately following construction Specification of type and location of erosion and sediment controls Stockpiling and management/segregation of topsoil where it contains native plants seedbank or weed material <p>The revised draft EIS has been updated to provide detailed flood modelling and impact assessment. Refer to Section 14.6.3 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology. In response to the additional information requested:</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=C1GCEB_enAU1015AU1015&dq=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aq=chrome.69i57.9731j0j4&sourceid=chrome&ie=UTF-8</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.6.3</p> <p>Section 14.8.1</p> <p>Chapter 18: Economics</p> <p>Section 18.9</p> <p>Section 18.12</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p> <p>Section 3</p> <p>Appendix Y: Economic Impact Assessment</p> <p>Section 5.5</p>
85	85.0001	Private	Land Use and Tenure	Severance of agricultural land	Submitter's agricultural property will no longer be viable with either irrigated cropping, dryland cropping or livestock because of the project. Project will dissect submitter's agricultural property prohibiting movement of livestock or machinery between sections of the property. Irrigation bore will most likely be decommissioned. No guarantee that the stock bore will remain due to location or disruption to electricity supply to the bore. Rear Section of property will be land locked with no road access, and proposed closure of Athol School Road will compromise access to front Section of property.	Total acquisition of the property.	<p>It is noted that the property is located at 5 Athol School Road.</p> <p>At this location, the Project is proposing to update the design as a result of design optimisation and incorporating stakeholder feedback in relation to the preferred location of the road rail interface. The proposed updated design now includes:</p> <ul style="list-style-type: none"> Rail over road grade separation at Athol School Road, rather than a closure as previously proposed in the draft EIS Purcell Road closure at the rail interface, rather than a passive level crossing as previously proposed in the draft EIS Proposed new road connecting Purcell Road and Athol School Road with an intersection Slight western shift in alignment to avoid direct impacts to Lot 6RP215310. <p>ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community:</p> <ul style="list-style-type: none"> Removal of level crossing, increasing safety benefits for the community Diversion of through traffic to the recently upgraded Athol School Road and Gore highway intersection, which is preferred by Toowoomba Regional Council and Department of Transport and Main Roads road managers over the Purcell Road and Gore Highway intersection. More direct route to/from Toowoomba via Athol School Road. <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.3 of the revised draft EIS for further detail.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises (Table 8-51). This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes in access to natural resources, such as groundwater and overland flow. <p>Further detail on consultation and mitigations are presented in Appendix E: Consultation Report. Negotiation of land acquisition will be undertaken in accordance with the Acquisition of Land Act 1967 (Qld), which includes the process for the resumption of land by a construction authority and compensation.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.3</p> <p>Table 8-51</p> <p>Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
85	85.0002	Private	Surface Water	Overland flow/diversion	Rail line will cross a natural waterway that in times of rainfall events has a high volume of water flowing through.	Extensive earthworks would be required on both sides of the rail line to create waterways to allow water to flow down to the natural waterway, which would then have to also be allowed to go under the rail line.	The Inland Rail revised reference design has been informed by a flooding and drainage assessment to ensure that existing flow paths are maintained and subject to minimal change (in line with the Project FIO's as endorsed by the Independent International Expert Flood Panel). This is discussed in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The proposed drainage structures are detailed in Appendix B1: Design drawings.	Appendix B1: Design Drawings Appendix T1 - Hydrology and Flooding Technical Report - Volume 1
85	85.0003	Private	Land Resources	Erosion	Disturbance to soil on prime agricultural land with proposed cuttings and fill areas creating loss of valuable top soil and creating possibility of future erosion.	Unable to foresee a solution.	A detailed soil investigation (Section 3.2.2, Section 4.5 and Section 5.0 of Appendix J: Soil Assessment Report) has been undertaken along the Project footprint to understand the soil properties further and refine existing soil mapping. Findings from the detailed soil investigation have informed soil-specific management measures (Section 9.5.4 in Chapter 9: Land Resources and Section 3 in Appendix AB: Earthworks Strategy and Draft Soil Management Plan) and will assist in planning, detailed design of structures, embankments, erosion control measures (both temporary and permanent), soil treatment and management, and site rehabilitation planning. Soil handling protocols prioritising the protection of topsoil have been detailed in a Soil Management Plan in Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Part B (Section 3). A Project concept erosion and sediment control plan (concept ESCP) will need to be developed to guide the development of area, site or section-specific ESCPs and include detailed erosion hazard assessments and ESC structure designs. Each of these will need to be regularly updated and maintained during construction. Refer to Chapter 24: Draft Outline Environmental Management Plan for specific details on these Plans.	Chapter 9: Land Resources Section 9.5.4 Chapter 24: Draft Outline Environmental Management Plan Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3 Appendix J: Soil Assessment Report Section 3.2.2 Section 4.5 Section 5.0
85	85.0004	Private	Land Resources	Erosion	Soil from other areas being used on property during construction allowing foreign weeds and soil degradation.	Unable to foresee solution.	ARTC acknowledges the concern from landowners about the potential spread of weeds during the Construction Works stage of the Project. As outlined in Chapter 24: Draft Outline Environmental Management Plan, "A Biosecurity Management Plan has been developed as a component of the CEMP. This Plan will include: <ul style="list-style-type: none"> Requirements for pre-clearing and operational surveys to determine the risk of weeds or pest animals being present within the Project footprint Maps of the existing extent, confirmed through surveys, and severity of weed infestation (e.g., restricted matters including mother-of-millions (<i>Bryophyllum delagoense</i>), opuntoid cacti, African boxthorn (<i>Lycium ferocissimum</i>), lippia (<i>Phyla canescens</i>) and lantana (<i>Lantana camara</i>) and weed-management requirements Pest animal management controls, including protocols for severing, realigning and reinstating the wild dog check fence and the Darling Downs Moreton Rabbit Board DDMRB rabbit fence Review of fire ant zones to confirm if the preparation of a fire ant management plan is required Site hygiene and waste-management procedures to deter pest animals Locations of vehicle washdown (light vehicle and oversize vehicles), wheel washes and rumble grids Weed surveillance and treatment during construction and rehabilitation activities such as: <ul style="list-style-type: none"> -Vehicle and plant washdown requirements for fleet moving from low-risk areas to high-risk areas -Weed certification requirements for vehicles, plant and materials arriving at the construction site. Requirements in relation to pesticide and herbicide use, including any limitations on use. Erosion and sediment control risks associated with broad-scale weed removal or treatment Corrective actions should the outcomes not achieve the adopted objectives. " 	Chapter 9: Land Resources Section 9.5.6 Chapter 24: Draft Outline Environmental Management Plan
85	85.0005	Private	Land Use and Tenure		Bores are likely to be decommissioned to allow the project to progress. The property will no longer be able to run livestock or grow irrigated crops.	Unable to foresee a solution.	As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, where possible, the Project has been aligned such that it avoids or minimises impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Where a groundwater bore is expected to be decommissioned or have access/usage disrupted as a result of the Project, 'make-good' measures will be agreed in consultation with the impacted landowners. See Appendix U: Groundwater Technical Report for further detail regarding the 'make-good' process (Chapter 15: Groundwater, Section 15.7.4). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. 	Chapter 8: Land Use and Tenure Section 8.6.3 Chapter 15: Groundwater Section 15.7.4 Appendix U: Groundwater Technical Report Section 7.1 Section 7.2 Section 8.2 Table 8.2
85	85.0006	Private	Social Impact Assessment	Directly impacted landowner	Loss of current and future income. Property is currently operated as a successful and profitable business being utilised for both cropping (irrigated and dryland) and livestock production. Main source of submitter's livelihood.	Negotiation on acquisition of property bearing in mind that a property of this calibre and all it offers will not be easy to replace in this vicinity.	Property acquisitions will be undertaken by Department of Transport and Main Roads (DTMR) as the acquiring authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967 (Qld) (AL Act). Appendix X: Social Impact Assessment, Section 7.1.2 notes that landowners will be entitled to claim compensation for the loss of a legal interest in land or estate in land, in accordance with the AL Act. If eligible for compensation, the compensation payable includes highest and best use market value of the land taken at the date of resumption. Compensation for disturbance caused by the resumption may also apply and include, for example, reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs, and the reasonable financial costs incurred that are a direct consequence of the resumption of the land. Where only part of a land parcel is acquired, compensation for damage caused by the severance of land, the resumed land and the impact upon the remaining land may also apply. The process for claiming compensation is set out in the AL Act. If the parties do not agree on compensation, a dispute about compensation can be referred to the Land Court (Appendix X: Social Impact Assessment, Section 7.1.2).	Appendix X: Social Impact Assessment Section 7.1.2
85	85.0007	Private	Social Impact Assessment	Directly impacted landowner	This property is also the submitter's security for retirement (approx. 10-12 years). The value of the property will increase considerably in this time ensuring a comfortable retirement.	Negotiation on acquisition of property bearing in mind that a property of this calibre and all it offers will not be easy to replace in this vicinity.	Property acquisitions will be undertaken by Department of Transport and Main Roads (DTMR) as the acquiring authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967 (Qld) (AL Act). Appendix X: Social Impact Assessment, Section 7.1.2 notes that landowners will be entitled to claim compensation for the loss of a legal interest in land or estate in land, in accordance with the AL Act. If eligible for compensation, the compensation payable includes highest and best use market value of the land taken at the date of resumption. Compensation for disturbance caused by the resumption may also apply and include, for example, reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs, and the reasonable financial costs incurred that are a direct consequence of the resumption of the land. Where only part of a land parcel is acquired, compensation for damage caused by the severance of land, the resumed land and the impact upon the remaining land may also apply. The process for claiming compensation is set out in the AL Act. If the parties do not agree on compensation, a dispute about compensation can be referred to the Land Court (Appendix X: Social Impact Assessment, Section 7.1.2).	Appendix X: Social Impact Assessment Section 7.1.2
85	85.0008	Private	Social Impact Assessment	Directly impacted landowner	Huge sentimental value as property has been held by myself and earlier family members for over 100 years. Ashes of deceased relative (a Vietnam Veteran) are also scattered on the property as per his request.	Unable to foresee a solution. The sentimental value of this property cannot be determined by a monetary value.	ARTC acknowledges the effects of acquisition on landowners' attachment to the land. Discussions with the submitter regarding land acquisition are ongoing. ARTC investigations indicate that the area of land where the ashes were scattered would not be affected by the Project footprint, however the potential for acquisition to impede the landowners' access to this area is acknowledged. The Project will work with individual landowners to find the best solution to relocate memorial sites that are directly impacted by construction of Inland Rail. The Project's land acquisition and consultation processes are outlined in Chapter 8: Land Use and Tenure and Appendix E: Consultation Report.	Chapter 8: Land Use and Tenure Appendix E: Consultation Report
85	85.0009	Private	Social Impact Assessment		Loss of income and my own employment due to the ramifications my property suffers due to the project making the property unviable.	Total acquisition of property by Inland Rail. However, to find another property of this calibre in the area will be extremely difficult.	Property acquisitions will be undertaken by Department of Transport and Main Roads (DTMR) as the acquiring authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967 (Qld) (AL Act). Appendix X: Social Impact Assessment, Section 7.1.2 notes that landowners will be entitled to claim compensation for the loss of a legal interest in land or estate in land, in accordance with the AL Act. If eligible for compensation, the compensation payable includes highest and best use market value of the land taken at the date of resumption. Compensation for disturbance caused by the resumption may also apply and include, for example, reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs, and the reasonable financial costs incurred that are a direct consequence of the resumption of the land. Where only part of a land parcel is acquired, compensation for damage caused by the severance of land, the resumed land and the impact upon the remaining land may also apply. The process for claiming compensation is set out in the AL Act. If the parties do not agree on compensation, a dispute about compensation can be referred to the Land Court (Appendix X: Social Impact Assessment, Section 7.1.2).	Appendix X: Social Impact Assessment Section 7.1.2
85	85.0010	Private	Stakeholder engagement	Directly impacted landowner	Submitter spoke with various Inland Rail representatives who were unable to answer his specific questions. Inland Rail claims the project will benefit Primary Industries but does not offer opportunities for produce to be loaded at points along the route.	Nil.	The development of sidings is driven by the market. Private enterprise determines where it is viable to locate and operate a siding or terminal. Additionally, the Federal and State government are jointly undertaking a business case into intermodal terminals in south-east Queensland. Details can be found on the Australian Government website at investmentinfrastructure.gov.au/Projects/111245-20qld-mrl . Potential opportunities for the community and business operators who are interested in potentially transporting agricultural freight and other goods have been and will continue to be identified. Information about the service offering including length and frequency of trains was publicly available and promoted.	N/A
86	86.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3, notes that the survey did not return a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. The Social Impact Assessment (Appendix X: Social Impact Assessment) has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
86	86.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, while construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Appendix X: Social Impact Assessment, Section 8, provides a comprehensive Social Impact Management Plan addressing all identified impacts, including community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in revised draft EIS Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
86	86.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.</p>	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Section 5.1.3 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p>
86	86.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>
86	86.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	<p>The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.</p>	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these substantial predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report, Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
86	86.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Heilidon, Heilidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Appendix AC: Proponent Commitments also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
87	87.0001	Private	Traffic and Transport	Level crossing	Proposed level crossing at Inglewood does not align with Queensland's level crossing safety strategy which encourages alternatives to level crossings in new infrastructure projects. Level crossings are one of the main reasons why accidents occur in railway traffic and 40% of accidents involving people occur on level crossings.	Re-evaluate the current plan and not put in a level crossing near Inglewood. There are alternatives that do not increase the accident risk.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
87	87.0002	Private	Traffic and Transport	Level crossing	The proposed level crossing at Inglewood would cause delays for emergency services, worsening access to health care for locals.	Re-evaluate the current plan and not put in a level crossing near Inglewood. There are alternatives that do not worsen the access to health care for locals.	<p>An assessment of potential delays to road traffic at level crossing was undertaken as detailed in EIS Appendix AA: Traffic Impact Assessment, Section 5.8 and 5.9. The modelling undertaken within this assessment provides an accurate representation of the impacts to vehicles, using traffic vehicle numbers and the calculated wait times for specific level crossings.</p> <p>All active level crossings have been analysed in the peak periods, accounting for the individually calculated wait times, in order to determine queue lengths and resultant impacts to traffic. Table 5.69 in Appendix AA provides the individual wait times for the level crossing locations along the alignment. The wait times determined for each individual level crossing were calculated based on;</p> <ul style="list-style-type: none"> ▶ Level crossing specific operating speeds (up to maximum design speed of 115 km/hr). The operating speed is impacted by topography and curvature of the alignment ▶ Time taken for the train to cross the level crossing ▶ Distance from train crossing loops and hence time taken for the train to accelerate from standstill. ▶ Train length ▶ Boom gate and signal operating times <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9 Table 5.69
88	88.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 of Appendix E: Consultation Report).</p> <p>Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
88	88.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
88	88.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energyex), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
88	88.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power at the non-resident workforce accommodation at Turallin, this would create noise and greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Border to Gowrie alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the Project revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6</p>
88	88.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas. The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
88	88.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas. The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with Toowoomba Regional Council and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with Toowoomba Regional Council and Goondiwindi Regional Council indicated that the non-resident workforce accommodation facilities are likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community (Appendix E: Consultation Report, Section 5.11).</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
88	88.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Eilerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20.5.1</p> <p>Section 20.6</p>
88	88.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
88	88.0009	Private - Turrallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan
89	89.001	Community Group	Land Resources	Erosion	It is noted that EIS Section 8.5.5 states that soil conservation plans (SCPs) are approved under the Soil Conservation Act, 1986(Qld) (the Act). The EIS notes that multiple approved soil conservation property and project plans (SCPs) exist within the impact assessment area. However, not all SCPs are approved under the Act.	There are other soil conservation farm plans in existence (e.g. plans that the Queensland Department of Natural Resources (QDNR), and previous Departmental versions, developed with farmers, but not approved) that would be affected by the Project. These have not been identified but should be included with the list of SCPs.	Detailed design will involve a review of all available Soil Conservation Plans (SCPs) (see Chapter 9: Land Resources, Section 9.4.4 and Section 9.5.5) and engagement with affected stakeholders. SCPs are being reviewed and incorporated in drainage design for the revised draft EIS reference design. Where available, SCPs have been reviewed as part of the reference design and cross drainage aligned to ensure consistency within hydraulic modelling. Refer to Chapter 14: Flooding and Geomorphology, Section 14.6.3 and Section 14.9.1. ARTC will review and consider these within the detailed design of cross-drainage infrastructure. Ongoing consultation with impacted landowners and the Department of Resources will occur to further align cross-drainage design with existing conditions. Refer to Section 6.7 in Chapter 6: Stakeholder Engagement.	Chapter 6: Stakeholder Engagement Section 6.7 Chapter 9: Land Resources Section 9.4.4 Section 9.5.5 Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.9.1
89	89.002	Community Group	Land Resources	Erosion	There are instances where cross-rail drainage works will be required, but not identified in the Design Drawings Appendices of the EIS (see Section 8 of this submission). These will need to be identified, and it is likely that on-farm soil conservation works will be necessary to accommodate those structures and a SCP developed for that property or part thereof.	nil.	Cross-rail drainage works are included in the revised draft EIS drawings, with revised cross-rail drainage works included in Appendix B1: Design Drawings. Where available, Soil Conservation Plans (SCPs) have been reviewed as part of the reference design and cross-drainage aligned to ensure consistency within hydraulic modelling. ARTC will review and consider these within the detailed design of cross-drainage infrastructure. Ongoing consultation with impacted landowners and the Department of Resources will occur to further align cross drainage design with existing conditions. Refer to Section 6.7 in Chapter 6: Stakeholder Engagement.	Chapter 6: Stakeholder Engagement Section 6.7 Appendix B1: Design Drawings
89	89.003	Community Group	Land Use and Tenure	Erosion	Many of the existing SCPs may require amendment due to alteration of drainage patterns (both existing natural and artificial patterns) due to proposed works such as cut and fill, cross-corridor culverts, borrow pits and storage areas as a result of the railway alignment and construction. Under the Act, any amendments of approved plans involve a process of consultation with all affected landholder(s) (ensuring accounting for any co-ordination issues) and the advertisement and subsequent approval by the QDNR, now the Department of Resources (DoR). It is also noted that any proposed amendment can be subject to an appeal by an affected landholder. Other non-approved SCPs may be altered once agreed upon using a consultation process with all affected landowners. As well, any altered drainage patterns may well have a knock-on effect to downstream landowners with a possibility of them having to accept extra runoff, thus necessitating implementation of additional measures to control that runoff.	These areas should be identified and any necessary soil conservation works and plans developed and implemented.	Detailed design will involve a review of all available SCPs (including all in Section 9.4.4 of Chapter 9: Land Resources), and engagement with affected stakeholders. SCPs are being reviewed for incorporation in drainage design for the revised draft EIS. Soil Conservation Plans and associated properties traversed by the Project alignment are listed in Table 9-15 and illustrated in Figure 9.21a-p of Chapter 9: Land Resources. ARTC has liaised with the Department of Resources on requirements around existing SCPs. ARTC will continue to consult with impacted landowners in regard to the flood modelling results and flood impact objective exceedances through development of the detailed design.	Chapter 9: Land Resources Section 9.4.4 Table 9-15 Figure 9.21a-p
89	89.004	Community Group	Land Resources	Erosion	It is proposed in the EIS that agreements with regard to SCPs will be reached, and amendments approved and implemented during the pre-construction phase of the project. Where any required new works involve alterations to waterway locations and dimensions, it is essential that the waterway bed and banks have adequate vegetative cover before runoff is diverted into them. In fact, achievement of suitable levels of cover may take at least 2-3 years depending on weather conditions (DSITI, 2015).	Given this, and the proposed project timelines, this process of SCP amendment and implementation should be instigated immediately upon approval of the Project or the necessary planning and implementation of works will not be carried out in time to accept any altered runoff patterns.	Where available, Soil Conservation Plans (SCPs) have been reviewed as part of the reference design and cross-drainage aligned to ensure consistency within hydraulic modelling. ARTC will review and consider these within the detailed design of cross drainage infrastructure. Ongoing consultation with impacted landowners will occur to further align cross-drainage design with existing conditions. Significant bridge openings and cross-drainage culverts have been allowed for in the reference design to retain the existing flow of flood water. In addition, a geomorphology assessment has been undertaken as reported in revised draft EIS Chapter 14: Flooding and Geomorphology (Section 14.9.1) to identify appropriate mitigation that may be required as a result of disturbances to waterways.	Chapter 14: Flooding and Geomorphology Section 14.9.1
89	89.005	Community Group	Land Resources	Erosion	It is also stated in the EIS that the QDNR (now DoR) will be part of the consultation process required to amend SCPs. The DoR does not currently have staff with the requisite expertise, experience and training to undertake such a task yet alone do any design, implementation and monitoring. As such, there is a high risk of regulatory failure.	nil.	ARTC will continue to consult with the Department of Resources and impacted property owners throughout the Detailed Design stage to ensure that all Soil Conservation Plans (SCPs) are updated to reflect any revisions to cross drainage due to the introduction of Inland Rail (refer to Section 14.8 and 14.9.1 of Chapter 14: Flooding and Geomorphology). Stakeholder consultation is outlined in Appendix E: Consultation Report.	Chapter 14: Flooding and Geomorphology Section 14.8 Section 14.9.1 Appendix E: Consultation Report
89	89.006	Community Group	Land Resources	Erosion	This group stresses that any new soil conservation measures required as a result of the Project must be identified and implemented and in a state fit to receive runoff well before the rail line is constructed and that relevant Queensland Government Departments be given sufficient resources to oversee this task.	nil.	Detailed design will involve a review of all available Soil Conservation Plans (SCPs) (including all those listed in Chapter 9: Land Resources, Section 9.4.4), and engagement with affected stakeholders. SCPs are being reviewed and incorporated into the drainage design for the revised draft EIS reference design. Where available, SCPs have been reviewed as part of the reference design and cross drainage aligned to ensure consistency within hydraulic modelling. SCPs have been updated throughout Chapter 14: Flooding and Geomorphology. ARTC has liaised with the Department of Resources on requirements around existing SCPs with mitigation measures to be developed by a suitably qualified Certified Practising Soil Scientist. ARTC will review and consider these within the detailed design of cross-drainage infrastructure. Ongoing consultation with impacted landowners and the Department of Resources will occur to further align cross drainage design with existing conditions. Refer to Section 6.7 in Chapter 6: Stakeholder Engagement.	Chapter 6: Stakeholder Engagement Section 6.7 Chapter 9: Land Resources Section 9.4.4 Chapter 14: Flooding and Geomorphology
89	89.007	Community Group	Land Use and Tenure	Severance of agricultural land	The proposed route will alienate a further 1,861 ha of Class A and B land (outside existing corridors) (Chapter 8, Land Resources, Section 8.6.2, Loss of Soil Resources) and will traverse 286 freehold lots of productive agricultural land (Table 57, AECOM, 2017). Along with loss of land, this incursion onto those lots will disrupt farming operations (enormously in some cases) adding to production costs and/or losses. The Queensland Government has a policy of protecting productive agricultural land for food supply for future generations. Their Regional Planning Interests Act 2014 supposedly had the purpose and intent of supporting this policy. However, in reality, it appears that this policy is given scant regard when development projects such as housing sub-divisions, mining projects, electricity generation and distribution, and transport corridors are considered as is the case here. The EIS describes the land surrounding the Project as predominantly used for livestock grazing, combined with other agricultural uses including irrigated cropping. What it fails to indicate is that the corridor traverses one of the most productive dry-land agricultural areas in Australia, regardless of its current use.	It is recommended that the value of the productive agricultural land be given an appropriate weighting when assessing alternate route options, with a view to minimising the alienation of agricultural Land Classes A and B.	As described in Section 8.5.1, Chapter 8: Land Use and Tenure of the revised draft EIS, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses; <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.02 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) Within Toowoomba, the permanent disturbance footprint traverses approximately; <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land The Regional Planning Interests Act 2014 (Qld) is discussed in Chapter 3: Legislation and Project Approvals Process, Section 3.4.26. The Project is not a resource activity or a regulated activity under the Regional Planning Interests Act 2014 and therefore the Regional Planning Interests Act 2014 does not apply to the Project. To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9 by the Project, which provides a total of areas of regional interest in relation to the Project footprint. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations. Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.3). Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.3 of Chapter 8: Land Use and Tenure). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. Appendix Y: Economic Impact Assessment states, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. Chapter 2: Project Rationale states, foreseeable opportunities for proceeding with Inland Rail Project to increased agricultural production include (further detail, refer Chapter 2: Project Rationale, Section 2.5.1): <ul style="list-style-type: none"> Improved access in agricultural areas to key local, regional and international markets, which will improve market drought resilience and the ability to move greater volumes of grain via rail. The Project will be dual-gauged to help agricultural producers in northern NSW and SEQ to be able to take advantage of this significant time saving. It is more cost effective for grain growers in northern NSW to send grain by rail to the Port of Brisbane than to Newcastle. Reduced transport costs may improve competitiveness of key markets and economic activity, particularly in the agricultural sector 	Chapter 2: Project Rationale Section 2.5.1 Chapter 3: Legislation and Project Approvals Process Section 3.4.26 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.3 Table 8-9 Appendix Y: Economic Impact Assessment

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.008	Community Group	Land Use and Tenure	Severance of agricultural land	Although the overall area alienated from agricultural use is relatively small, it is important to protect such land for agricultural uses now and into the future as further loss and erosion of such highly productive land will impact on the State's agricultural production. This incremental loss is yet another nail in the coffin of lost land and production. There may well be opportunity during the design stage of the Project to address this issue somewhat by adjusting the actual rail alignment within the rail corridor such that the loss of this productive land is minimised.	nil.	<p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. ARTC has considered this throughout the design development and will continue to consider as design progresses.</p> <p>Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p>	Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.2 Table 8-46
89	89.009	Community Group	Land Use and Tenure	Severance of agricultural land	It is noted that Environmental Offset Delivery and Offset Area Management Plans will be developed and implemented by ARTC prior to construction (subject to approval) under the Commonwealth's Environmental Protection and Biodiversity Act, Environmental Offset Policy (2012) and the Queensland Government's Queensland Environmental Offsets Policy (under the State Development and Public Works Organisation Act (1971) (EIS Chapter 10, Flora and Fauna and Appendix N Environmental Offset Delivery Strategy). This group asks: why is there not a similar requirement on ARTC with regard to loss of productive agricultural land?	nil.	<p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 percent of Class A land, 0.02 percent of Class B land, and 0.01 percent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately:</p> <ul style="list-style-type: none"> 0.17 percent of Class A land, 0.22 percent of Class B land, and, 0.19 percent of IAA land. <p>Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>The Regional Planning Interests Act 2014 (Qld) is discussed in Chapter 3: Legislation and Project Approvals Process, Section 3.4.26. The Act aims to strike an appropriate balance between protecting priority land uses and delivering a diverse and prosperous economic future for our regions. The Project is not a resource activity or a regulated activity under the Regional Planning Interests Act 2014 and therefore the Regional Planning Interests Act 2014 does not apply to the Project. To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9 by the Project, which provides a total of areas of regional interest in relation to the Project footprint. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations, as discussed above.</p>	Chapter 3: Legislation and Project Approvals Process Section 3.4.26 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-9
89	89.010	Community Group	Land Use and Tenure	Severance of agricultural land	This group recommends that the route be re-assessed so that high quality productive agricultural land is protected and the rail line placed on lesser quality agricultural land; or that offsets similar to those for impacted environmental issues be a requirement for approval of the Project.	nil.	<p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. As described in Chapter 2: Project Rationale, of the Revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail program of works.</p> <p>The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 percent of Class A land, 0.02 percent of Class B land, and 0.01 percent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately:</p> <ul style="list-style-type: none"> 0.17 percent of Class A land, 0.22 percent of Class B land, and, 0.19 percent of IAA land <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible (Chapter 8: Land Use and Tenure, Section 8.5.4 Table 8-46).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p>	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46
89	89.011	Community Group	Land Resources	Erosion	We note that it is proposed to cross the Condamine River floodplain and other floodplains with a mix of bridges and embankments with culverts. If flood flows are not managed appropriately on floodplains, soil erosion can result in damage to infrastructure, permanent loss of production and productive area, and farm management difficulties. Gully erosion on cracking clay floodplains caused by concentration of overland flows has been widely observed and documented on the eastern Darling Downs for more than 60 years see photographs 1-12 below and References DPI 1981a, 1981b. Considerable effort has been made by landowners, Queensland Government Departments (Primary Industries, Natural Resources, Main Roads, etc.) and local Governments over many years to develop farming and engineering practices appropriate to floodplains, see, for example, Marshall, 1988, QDNR, 1999, and Knowles-Jackson and McLatchey, 2002. The key underlying principle is to keep flood flows as shallow and slow as possible to minimise soil erosion risk i. e. spread as much as possible. Applying this principle to flood plain management involves practices such as lowering roads, strip cropping, maintenance of anchored crop stubble and minimum tillage.	Any infrastructure on floodplains should be designed to accommodate this principle.	<p>A detailed soil investigation (Appendix I: EMR Search Certificates and Soil Laboratory Certificates) has been undertaken along the Project's rail alignment disturbance footprint to further understand the soil properties and refine existing soil mapping. Findings from the detailed soil investigation have informed soil-specific management measures and assisted in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross-drainage structures (i.e., bridges and culverts). Current flow paths will not be disrupted and existing velocities will be maintained where practicable. As per ARTC's Mitigation Framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>The flood modelling and drainage assessment methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix I: EMR Search Certificates and Soil Laboratory Certificates Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
89	89.012	Community Group	Surface Water	Overland flow/diversion	It is noted (EIS, Chapter 5, Section 5.2.10, Fencing) that no fences will be erected across floodplains. This is in line with local recommended floodplain management practices that, where no fences are required, remove them if they exist. However, where livestock form part of the farming enterprises adjacent to the corridor in these areas, now and in the future, any fencing should be appropriate to floodplains and not cause any obstruction or diversion of flows. Advice with regard to suitable fencing on floodplains is given in QDNR, 1999.	nil.	<p>To limit access to the Project's rail alignment, fencing will be provided for the majority of the rail corridor. Fencing will act to protect adjoining lands from trespass and to prevent livestock from gaining access to the railway. Fencing is to extend between the corridor and private lots or property adjoining the railway. Property or land use specific fencing considerations will be discussed with relevant landowners as part of the detailed design process.</p> <p>As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au). Where ARTC propose to construct within the Queensland Rail corridor for all returned works (South Western Line and Millmerran Branch Line), ARTC shall comply with Queensland Rail standards; this includes new and replacement fencing. All existing fencing is proposed to be removed and replaced. Where ARTC are proposing to construct new railway corridor that coincides with road manager or landowner fencing, this will be replaced typically with ARTC fencing procedure, Boundary Fencing ETM-17-02. Where superior fencing is required (for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur) a 1.8 m chain link boundary fence may be provided, refer Section 5.4.12 and Table 5.19 in Chapter 5: Project Description.</p>	Chapter 5: Project Description Section 5.4.12 Table 5.19
89	89.013	Community Group	Surface Water	Overland flow/diversion	It is shown in the Draft Report on Review of Border to Gowrie Section for flood studies (IPE, 2021) that the (5% and 95%) confidence limits around estimate peak discharges for the Annual Exceedance Probabilities (AEPs) examined are quite wide often greater than a ten-fold difference. That report also notes that the peak discharges estimated for the Condamine River at Brookstead may well be underestimated.	If this is the case, then there is no question that viaducts should be used to cross all floodplains - to allow flows to pass relatively unimpeded and remain spread - and that these viaducts should be designed with a generous safety factor (or freeboard) in mind.	<p>The flood modelling conducted for the Project (including the hydrologic estimates) has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.014	Community Group	Surface Water	Aquatic fauna	It is stated in the EIS Summary of Findings Section on Flora and Fauna, pg. 54, that bridges are preferred over culverts to maintain connectivity for matters of national environmental significance such as Murray Cod. This group agrees with this sentiment and believes this statement should be expanded to include impacted landowners and the conservation of land resources.	nil.	Appendix P: Fauna Connectivity Strategy details that the current fauna crossing location criteria encompasses remnant vegetation, high-value wildlife habitat, drainage features, areas containing historical records for fauna species, and areas recognised as a biodiversity corridor. The current design does not account for any other factors as the crossing criteria accounts for permeability across the landscape for fauna only. Appendix P: Fauna Connectivity Strategy further states that it is expected that there will be limited impacts on Murray Cod habitat with open span bridges being built over large waterways and flood plains. It is expected that connectivity is to be maintained for this reason. Chapter 11: Flora and Fauna, outlines ecological value specific mitigation and management measures for the Murray cod, including: <ul style="list-style-type: none"> Construction activities will be scheduled to avoid/minimise instream works and associated riparian habitat in identified habitat Construction works will take place outside of the wet season when flows in floodplain systems are more likely Pre-construction surveys of watercourse crossings that are identified as potential habitat if suitable waterholes are present (i.e. Condamine River floodplain channels and the Macintyre River) will be undertaken to identify whether the species occurs; surveys will follow the <i>Survey Guidelines for Australia's Threatened Fish</i> (DSEWPac, 2011b) Where a temporary impoundment or diversion is required for construction purposes and the species is found to be present, an appropriately qualified person will be consulted to make an assessment on the method of recovery, transport and release of fish and will follow relevant State (i.e. Department of Agriculture and Fisheries) fish salvage guidelines during construction activities Where possible, instream habitat will be reinstated to its pre-construction state (e.g. replacement of large woody debris and ensuring no or limited change to instream flows to allow fish passage) Implementation of the Biosecurity Management Plan, Soil Management Plan and the Surface Water Management Plan. 	Chapter 11: Flora and Fauna Section 11.5 Appendix P: Fauna Connectivity Strategy Section 5 and 7
89	89.015	Community Group	Surface Water	Overland flow/diversion	If infrastructure must be above the 1% AEP flood levels, it is recommended that viaducts spanning entire floodplains (with a safety factor allowance) be accepted as an appropriate means of satisfying the requirement of maintaining spread flows as they have minimal impact on flow paths and allow flows to pass under them with minimal diversion, concentration or ponding.	nil.	The flood modelling conducted for the Project (including the hydrologic estimates) has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1
89	89.016	Community Group	Surface Water	Erosion	This group recommends that, in order to minimise soil degradation risk and probable subsequent legal liability, viaducts should be used to cross the full extent of all floodplains.	nil.	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised reference design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of the revised draft EIS Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Scour protection requirements for culverts during the revised reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping information is available, and in consultation with specialist Geomorphologists and Soil Scientists. ARTC are happy for this commitment to be conditioned as part of the EIS approval (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.3). With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Chapter 14: Flooding and Geomorphology Figure 14.20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 22.3
89	89.017	Community Group	Surface Water	Erosion	It is noted that, for the design of the Condamine River floodplain crossing at Brookstead, it is now planned to replace approximately 20% of previously proposed reinforced concrete pipes (RCPs) 452 now with 76 reinforced concrete box culverts (RCBCs) between a system of bridges or viaducts. This group foresees ongoing problems if the proposed design of a mix of embankments with culverts and bridges for rail corridor crossing of black soil floodplains is implemented. As well, where culverts are located on Vertosol and Sodic soils, ongoing monitoring and maintenance costs can be expected to be quite high.	nil.	Scour protection requirements for culverts during reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.3).	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 22.3
89	89.018	Community Group	Surface Water	Modelling	The inaccuracy of the elevation data used in the hydraulic modelling used to assess flow dynamics together with changes in micro topography across the floodplains over time see below, Section 3.6 LIDAR Surveys and infrastructure requirements on floodplains - gives concern with respect to the proposed location and number of culverts.	nil.	As detailed within Appendix T1: Hydrology and Flooding Technical Report - Volume 1, various sources of LIDAR have been utilised to inform hydraulic modelling including 1 m ARTC LIDAR, SRTM data and third-party data where available. It is acknowledged that the vertical accuracy of LIDAR used is variable depending on the data source. Detailed survey of the alignment corridor is proposed to be obtained during the Detailed Design stage of the Project to accurately represent the terrain, and associated drainage lines, to allow appropriate placement of cross drainage structures. It is considered that the adopted LIDAR utilised as part of the revised draft EIS hydraulic modelling is of sufficient accuracy for a Reference Design. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
89	89.019	Community Group	Surface Water	Erosion	There are some inconsistencies in proposals between the EIS and various reports presented previously with regard to the outlet velocities proposed for these culverts. For example, it is proposed in the EIS that the outlet velocities of culvert discharges onto stiff clays be kept below 2.0 m/s. The Yearlton to Gowrie Corridor Options Report, (AECOM, 2017), recommended that flow velocities on floodplains be no more than 1 m/s their modelling shows, for the events they reported, the estimated peak velocities in the Condamine River floodplain to be mostly less than 1 m/s and that drainage will be designed to ensure that velocity of flows be maintained at existing levels. The proposed velocity of 1 m/s is satisfactory for the cracking black clay soil present on the Condamine floodplain and elsewhere provided there is well anchored vegetative cover. However, when flows do occur under flooding and inundation conditions, the clays present on the Condamine floodplain are not stiff but are saturated and flows at much lower velocities can cause erosion, not only of land downstream but possibly also to the rail embankment.	DSITI (2015) recommends flow velocities of no more than 0.6 m/s on bare cultivated clay soils a situation that will often arise in the cultivated areas downstream of the floodplain crossings.	Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping information is available, and in consultation with specialist Geomorphologists and Soil Scientists. ARTC are happy for this commitment to be conditioned as part of the EIS approval (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.3).	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 22.3
89	89.020	Community Group	Surface Water	Erosion	It is reported in the Draft Report on Review of Border to Gowrie Section for Flood Studies (IPE, 2021) that the Quantitative Design Limits for flow velocities on agricultural land adjacent to the Narrabri to North Star Section of the line not exceed 0.5 m/s unless they already do (and then only a 20% increase) or are site-specifically justified.	The soils there are similar to those on the floodplains and other cultivated lands in Queensland and, as such, those design limits should apply equally in Queensland.	A review of the Flood Impact Objectives (FIOs) has been undertaken in consultation with the Expert Flood Panel to consider the NSW Quantitative Design Limits with revised FIOs detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Hydrology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
89	89.021	Community Group	Surface Water	Mitigation measures	Thus, where culverts are to be used, there is a need for well-maintained energy dissipaters and flow spreading structures at their outlets to bring flow velocities down to acceptable levels (0.6 m/s maximum).	To achieve this velocity, and to ensure flows are spread before runoff is discharged onto cultivated land, these energy dissipation structures may well have to be extended outside the corridor.	A review of the Flood Impact Objectives (FIOs) has been undertaken in consultation with the Expert Flood Panel to consider the NSW Quantitative Design Limits with revised FIOs detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-controlled roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5-17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. Scour protection requirements for culverts during reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist geotechnical and soil conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Hydrology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
89	89.022	Community Group	Surface Water	Erosion	It is recommended that if culverts of any design are to be used wherever Vertosols are present, culvert outlet velocities should not exceed 0.6 m/s.	nil.	A review of the Flood Impact Objectives (FIOs) has been undertaken in consultation with the Expert Flood Panel to consider the NSW Quantitative Design Limits with revised FIOs detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-controlled roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5-17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. Scour protection requirements for culverts during reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist geotechnical and soil conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Hydrology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.023	Community Group	Surface Water	Mitigation measures	Given that the flow exit velocities from pipes are higher than for box culverts, we further recommend that, if culverts must be used, all the RCPs should be replaced by RCBCs.	nil.	<p>A review of the Flood Impact Objectives (FIOs) has been undertaken in consultation with the Expert Flood Panel to consider the NSW Quantitative Design Limits with revised FIOs detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-controlled roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section (Section 5-17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11) of Chapter 14: Flooding and Geomorphology.</p> <p>Scour protection requirements for culverts during reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design.</p> <p>Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist geotechnical and soil conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.</p>	Chapter 14: Flooding and Hydrology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
89	89.024	Community Group	Surface Water	Overland flow/diversion	During the detailed design phase, there could well be a need to change the location of culverts to that presented in the EIS. Overland flow paths were identified for the majority of the Condamine River floodplain during the Upper Condamine River Floodplain Project (UCFP) (Knowles-Jackson and McLatchey, 2002). Examples of these flow paths have been altered by on and off farm infrastructure are shown on Attachments 1-5. These examples give evidence that careful consideration should be given to placement of infrastructure on floodplains so that flows are not diverted. Copies of those maps with the identified flow paths are available from the Toowoomba DoR office.	nil.	As detailed within Appendix T1: Hydrology and Flooding Technical Report - Volume 1, various sources of LiDAR have been utilised to inform hydraulic modelling including 1 m ARTC LiDAR, SRTM data and third-party data where available. It is acknowledged that the vertical accuracy of LiDAR used is variable depending on the data source. Detailed survey of the alignment corridor is proposed to be obtained during the Detailed Design stage of the Project to accurately represent the terrain, and associated drainage lines, to allow appropriate placement of cross drainage structures. It is considered that the adopted LiDAR utilised as part of the revised draft EIS hydraulic modelling is of sufficient accuracy for a reference design and EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1
89	89.025	Community Group	Surface Water	Mitigation measures	Other considerations with regard to culverts that we consider to be essential to reduce the potential for structural failure, siltation and soil erosion are: <ul style="list-style-type: none"> where box culverts are to be used, they should be placed side by side for the entire length of an embankment culverts should be placed in the lowest point of the natural depression regardless of what the chainage map says in order to minimise the chance of flow diversions, culverts should be aligned with the natural flow directions not just be at 90 degrees to the embankment in upland areas where a SCP exists, culverts should be placed in accordance with agreements made with affected upstream and downstream landowners. 	nil.	As detailed within Appendix T1: Hydrology and Flooding Technical Report - Volume 1, various sources of LiDAR have been utilised to inform hydraulic modelling including 1 m ARTC LiDAR, SRTM data and third-party data where available. Detailed survey of the alignment corridor is proposed to be obtained during the Detailed Design stage of the Project to accurately represent the terrain, and associated drainage lines, to allow appropriate placement of cross drainage structures. Culvert placement and skew will be determined based on existing flow paths and governed by appropriate design standards. Where existing SCPs exist, ARTC will review and consider these within the detailed design of cross drainage infrastructure. Ongoing consultation with impacted landowners will occur to further align cross drainage design with existing conditions (Section 22.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 22.3
89	89.026	Community Group	Surface Water	Mitigation measures	It is noted in the Draft Report on Review of Border to Gowrie Section for Flood Studies (IPE, 2021) that hard structures such as culverts should not be used on Vertosol soils (as are present on most floodplains the line crosses) as they will lead to high monitoring and maintenance costs. They (the IPE) recommend use of viaducts instead. We concur with their recommendation.	nil.	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts).</p> <p>Scour protection requirements for culverts during the revised reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping information is available, and in consultation with specialist Geomorphologists and Soil Scientists. ARTC are happy for this commitment to be conditioned as part of the EIS approval.</p> <p>With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
89	89.027	Community Group	Surface Water	Mitigation measures	All these factors add weight to the argument of using viaduct(s) across entire floodplains rather than a mix of bridges/viaducts and embankments with culverts to cross those floodplains.	nil.	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts).</p> <p>Scour protection requirements for culverts during the revised reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping information is available, and in consultation with specialist Geomorphologists and Soil Scientists. ARTC are happy for this commitment to be conditioned as part of the EIS approval.</p> <p>With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
89	89.028	Community Group	Surface Water	Mitigation measures	The proposed approximately 12.5 km of embankments across the Condamine River floodplain (from chainages 131.39 to 150.01 less 6.034 km of bridges) together with those across other floodplains will act similarly to dam banks during periods of flow, particularly where flood inundation or ponding may exist over a period of hours or days. Without proper construction, ring tanks built on Vertosols and similar soils have failed due to seepage, formation cracking, animal burrows, piping along abutments and pipes, compaction flaws and erosion (Barrett, 2007) (Photographs, 11, 12). This led to design modifications for such structures including a need for walls to be constructed as shown in Diagram 1. It is noted that the Project design drawings show embankment batters of 1.5H:1V. In view of the above reference, we consider that batters of 1.5H:1V are too steep for formations on black soil plains and erosion and slumping of the embankments are likely. A prime example of this is the 18 m high embankment at Chamberlain Road crossing (approximate Chainage 204.5)) if this is constructed using the soils there and this batter, the embankment is likely to fail.	Without specific data on the soils upon which the embankments are to be built being available, it is impossible to determine what foundations are necessary, including the depth of any cut-off trench required, batter slopes, thickness of the embankment, what is required along pipes to prevent seepage, possibility of liquefaction and so on. This issue has been noted in the EIS (Section 8.6.3) and TOR (Section 10.7) and that further investigations are proposed to be carried out on the soils across the Condamine River floodplain with possible design changes prior to construction. We recommend detailed soil/geological investigations be carried out prior to reassessment of any design features of the proposed rail line; and if any embankments are required on floodplains then flatter batters are implemented.	<p>A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Section 3.2.2, Section 4.5 and Section 5.0 of Appendix J: Soil Assessment Report). The surveys were conducted by suitably qualified and experienced persons and the report was endorsed by Certified Practising Soil Scientist. Soil management units from the investigation are provided in Section 3.3 and Figure 3.16. This level of investigation is sufficient to allow determination of soil suitability and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning.</p> <p>Chapter 9: Land Resources Section 9.6.3, Table 9-29 also details the following: "An Erosion and Sediment Control Plan (ESCP) will be implemented as a component of the CEMP and will guide development of site or Section specific ESCPs and include detailed erosion hazard assessments and erosion and sediment control structure designs. The erosion and sediment control measures will be developed by a certified practitioner in erosion and sediment control, in accordance with the intent of <i>Best Practice Erosion and Sediment Control</i> (IECA, 2008) and the <i>Soil Conservation Guidelines for Queensland</i> (DSITI, 2015) and will be implemented during construction of the Project".</p> <p>Section 3 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan also presents mitigation measures for soil units present within the Project footprint.</p> <p>ARTC have consulted QDNRME as a contributor to the study area for the North-South Rail Corridor study as indicated in Table E-6 of Appendix E: Consultation Report of the revised draft EIS. Consultation will continue to take place with the relevant stakeholders for the Condamine floodplains and contaminated.</p> <p>Construction and operations flood impacts on land in the Condamine River floodplain have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Chapter 9: Land Resources Section 9.6.3 Table 9-29 Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3 Appendix J: Soil Assessment Report Section 3.2.2 Section 4.5 Section 5.0 Appendix E: Consultation Report Table E-6 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3
89	89.029	Community Group	Land Resources	Monitoring	One of the project performance criteria (Chapter 22, Outline Environmental Management Plan, Section 22.11.2.2) is Project works do not cause erosion or contamination beyond the temporary or permanent works. The EIS does not clarify whether and who will carry out any required monitoring, maintenance and modifications, or how far outside of the rail corridor this will occur. It should be noted that soil degradation (erosion, sedimentation, etc.) on floodplains may occur many kilometres downstream of actual works due to diversion/concentration of flood flows. That soil degradation may well cause loss of productivity to that land which may take years to recover to its original productivity if at all.	It is recommended that monitoring of the impacts of runoff be carried out for all parts of the affected floodplains; and that ARTC take responsibility for all soil degradation issues and carry out repairs to restore the productivity of any impacted upstream and downstream lands.	<p>Chapter 9: Land Resources, Section 9.6.3, Table 9-29 details the following in relation to contaminated land: "A Contaminated Land Management Plan will be developed by a suitably qualified person, as recognised under the <i>Environmental Protection Act 1994</i> (Old), and will be further developed and incorporated into the Construction Environmental Management Plan (CEMP)". The plan will establish an unexpected finds protocol/procedure if potentially contaminated materials, including unexploded ordnance (UXO), are encountered during construction activities.</p> <p>Chapter 9: Land Resources, Section 9.6.3, Table 9-29 also details the following: "An Erosion and Sediment Control Plan (ESCP) will be implemented as a component of the CEMP and will guide development of site or Section specific ESCPs and include detailed erosion hazard assessments and erosion and sediment control structure designs. The erosion and sediment control measures will be developed by a certified practitioner in erosion and sediment control, in accordance with the intent of <i>Best Practice Erosion and Sediment Control</i> (IECA, 2008) and the <i>Soil Conservation Guidelines for Queensland</i> (DSITI, 2015) and will be implemented during construction of the Project".</p> <p>A detailed soil investigation at a scale of 1:10,000 has been completed (Refer to Section 4.5 and Section 5.0 of Appendix J: Soil Assessment Report). Further soil management measures are provided in Section 3 of Appendix AB: Draft Earthworks Strategy and Soil Management Plan for specific soils identified within the Project footprint. The effectiveness of permanent erosion controls (e.g., scour protection or vegetated swales) will be monitored as part of the maintenance inspection schedule for the Project, as prescribed in the Operational Environmental Management Plan. Controls that are found to be failing or not performing as intended will either be modified or replaced, as required.</p>	Chapter 9: Land Resources Section 9.6.3 Table 9-29 Appendix J: Soil Assessment Report Section 4.5 Section 5.0 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3
89	89.030	Community Group	Land Resources	Monitoring	Over time, there will be a likely need to review the monitoring program along with remediation works implemented to assess their effectiveness. This should be carried out in consultation with all affected stakeholders.	It is recommended that monitoring and maintenance programs be regularly reviewed and altered accordingly in consultation with all affected stakeholders.	<p>It is noted in of Chapter 24: Draft Outline Environmental Management Plan, the predicted Project impacts on land resources will be minimised through the detailed design process and implementation of the Rehabilitation and Landscape Management Plan. Once the Project becomes operational, the impact management approach will transition to a maintenance program informed by periodic and event-based inspections and monitoring. The focus of the maintenance program will be on infrastructure integrity and safety. This focus will include the rehabilitation and landscape works delivered as part of the Project.</p> <p>Where periodic inspections and monitoring detect the Project contributing directly to the diminution of land resources in the Project footprint, ARTC will undertake specific remedial actions as necessary to mitigate the risk of further losses.</p>	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.031	Community Group	Land Resources	Erosion	During December 2020 discussions with ARTC staff, it was mentioned that ARTC were in the process of calling construction tenders. Given the lack of relevant data/information such as what soils are present and what construction techniques are appropriate for the range of soils, uncertainty around flood modelling results and the need for further survey information, it would appear premature to progress any tendering processes. There is a high potential for failure if inappropriate construction techniques are used due to inadequate information on soil properties, and associated land degradation risks.	nil.	<p>ARTC has completed an assessment in Appendix J: Soil Assessment Report, of the Project's potential impacts on soils in accordance with the guidelines listed below:</p> <ul style="list-style-type: none"> Department of Environment and Science, Guidelines for Soil Survey along Linear Features Department of Resources, Queensland Soil and Land Resource Survey Information Guideline, Version 2. 00 CSIRO, Guidelines for surveying soil and land resources and Australian soil and land survey field handbook <p>Appendix J: Soil Assessment Report was completed to a scale of 1:10,000 and has identified soil management units to inform appropriate soil management plans (as described in Appendix J: Soil Assessment Report, Section 1.3). Given the soil sampling intensity and the refinement of rail alignment in the revised reference design, it is considered that impacts at a property scale can be assessed and appropriate mitigation measures proposed in Part B: Draft Soil Management Plan (Section 3) of Appendix AB: Earthworks Strategy and Draft Soil Management Plan. This was undertaken by suitably qualified soil scientists. A third-party Certified Professional Soil Scientist undertook the review (including soil management plan). The soil survey work, data collection and laboratory analysis updates have been reflected in Chapter 9: Land Resources.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Expert Flood Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Expert Flood Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both draft and final reports from the Expert Flood Panel are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&aq=chrome.69157.9731j0j4&sourceid=chrome&ie=UTF-8</p> <p>For specific details on the modelling undertaken, refer to Chapter 14: Flooding and Geomorphology, Section 14.5.</p>	<p>Chapter 9: Land Resources</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.5</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p> <p>Section 3</p> <p>Appendix J: Soil Assessment Report</p> <p>Section 1.3</p>
89	89.032	Community Group	Surface Water	Modelling	It is noted that a mix of publicly available LIDAR (Light Detection and Ranging) and SRTM (Shuttle Radar Topographic Mission) elevation data sets were used for the hydraulic modelling of the Condamine floodplain (AECOM, 2017, GTA, 2020) it is not clear where each data set was used. Whilst it is acknowledged that these are the best elevation data sets currently available, question marks remain as to the vertical accuracy of that data. LIDAR data is often quoted as having a vertical accuracy in the 10-20 cm range whilst accuracy of SRTM data is in the metres. That accuracy is also affected by the presence/absence of vegetation if light does not reach the actual soil surface. As well, the surface of the expansive clay soils of the Condamine River floodplains rises and falls as the soils wet up/dry out. This change in elevation is often spatially variable across the floodplain due to differential water entry and subsequent use resulting from uneven precipitation and overland flows, and presence/absence of growing (transpiring) crops. This and variations in surface hydraulic roughness due to presence/absence of crops can influence flood flows, with the result that actual flood flow paths may not be as modelled. Thus, given the inherent inaccuracy in the elevation data and possible changes in flow paths over time, there is a question mark on the model(s) outputs and the choice of location and number of culverts as presented may well be incorrect. To be fair, it is noted that updated LIDAR data will be acquired for the whole model domain to facilitate model updates during the detailed design phase to overcome the discrepancies between the LIDAR data sets used for the hydraulic modelling (Appendix Q1, p.82).	Again, it would appear premature for ARTC to call for construction tenders before the substrate identification, upgraded modelling and any necessary changes to design are completed.	<p>As detailed within Appendix T1: Hydrology and Flooding Technical Report - Volume 1, various sources of LIDAR have been utilised to inform hydraulic modelling including 1 m ARTC LIDAR, SRTM data and third-party data where available. It is acknowledged that the vertical accuracy of LIDAR used is variable depending on the data source. Detailed survey of the alignment corridor is proposed to be obtained during the Detailed Design stage of the Project to accurately represent the terrain, and associated drainage lines, to allow appropriate placement of cross drainage structures. It is considered that the adopted LIDAR utilised as part of the revised draft EIS hydraulic modelling is of sufficient accuracy for a reference design.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as detailed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p>
89	89.033	Community Group	Hazard and Risk	Erosion	The list of hazards in Section 19 (Introduction) is incomplete. Another natural hazard that can affect risks from the project during all phases is soil type, particularly saline and sodic soils. As well, the statement Permanent alteration to land form and topography remains a medium risk due to the potential for loss of soil resources through erosion and disturbance of existing contaminated land during the construction phase of the project is correct as far as it goes. Agricultural land has a high ongoing risk from erosion during floods particularly when the soil surface is bare. Erosion prone areas include those immediately downstream of rail cross-drainage works, those upstream of the rail corridor due to lateral drainage along the line and soil conservation works both upstream and downstream in and adjacent to the rail corridor.	As such the statement above should include this ongoing risk not only during the construction phase.	<p>Detailed soil survey and mapping has been conducted to inform the revised draft EIS. The risks associated with the various soil types that have been mapped within the Project footprint are discussed in detail in Section 4.5 of Appendix J: Soil Assessment Report and summarised in Section 9.4.2 of Chapter 9: Land Resources.</p> <p>It is not the intention of Chapter 21: Hazard and Risk to duplicate the assessment of risk where this has been presented in detail elsewhere in the revised draft EIS.</p> <p>Acknowledging that soil type is a risk to the Project, a reference to this risk has been provided in Section 21.1 (Scope of chapter) and Table 21-15 (Natural hazards) of Chapter 21: Hazard and Risk, with cross-reference to locations of detailed risk assessment in Appendix J: Soil Assessment Report and Chapter 9: Land Resources.</p>	<p>Chapter 9: Land Resources</p> <p>Section 9.4.2</p> <p>Chapter 21: Hazard and Risk</p> <p>Section 21.1</p> <p>Table 21-15</p> <p>Appendix J: Soil Assessment Report</p> <p>Section 4.5</p>
89	89.034	Community Group	Land Resources	Local business and industry procurement	During December 2020 discussions with ARTC staff, it was mentioned that ARTC were in the process of calling construction tenders. Given the lack of relevant data/information such as what soils are present and what construction techniques are appropriate for the range of soils, uncertainty around flood modelling results and the need for further survey information, it would appear premature to progress any tendering processes. There is a high potential for failure if inappropriate construction techniques are used due to inadequate information on soil properties, and associated land degradation risks.	nil.	<p>ARTC has completed an assessment in Appendix J: Soil Assessment Report, of the Project's potential impacts on soils in accordance with the guidelines listed below:</p> <ul style="list-style-type: none"> Department of Environment and Science, Guidelines for Soil Survey along Linear Features Department of Resources, Queensland Soil and Land Resource Survey Information Guideline, Version 2. 00 CSIRO, Guidelines for surveying soil and land resources and Australian soil and land survey field handbook <p>Appendix J: Soil Assessment Report was completed to a scale of 1:10,000 and has identified soil management units to inform appropriate soil management plans (as described in Appendix J: Soil Assessment Report, Section 1.3). Given the soil sampling intensity and the refinement of rail alignment in the revised reference design, it is considered that impacts at a property scale can be assessed and appropriate mitigation measures proposed in Part B: Draft Soil Management Plan (Section 3) of Appendix AB: Earthworks Strategy and Draft Soil Management Plan. This was undertaken by suitably qualified soil scientists. A third-party Certified Professional Soil Scientist undertook the review (including soil management plan). The soil survey work, data collection and laboratory analysis updates have been reflected in Chapter 9: Land Resources.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Expert Flood Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Expert Flood Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both draft and final reports from the Expert Flood Panel are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&aq=chrome.69157.9731j0j4&sourceid=chrome&ie=UTF-8</p> <p>For specific details on the modelling undertaken, refer to Chapter 14: Flooding and Geomorphology, Section 14.5.</p>	<p>Chapter 9: Land Resources.</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.5</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p> <p>Section 3</p> <p>Appendix J: Soil Assessment Report</p> <p>Section 1.3</p>
89	89.035	Community Group	Surface Water	Modelling	It is noted that a mix of publicly available LIDAR (Light Detection and Ranging) and SRTM (Shuttle Radar Topographic Mission) elevation data sets were used for the hydraulic modelling of the Condamine floodplain (AECOM, 2017, GTA, 2020) it is not clear where each data set was used. Whilst it is acknowledged that these are the best elevation data sets currently available, question marks remain as to the vertical accuracy of that data. LIDAR data is often quoted as having a vertical accuracy in the 10-20 cm range whilst accuracy of SRTM data is in the metres. That accuracy is also affected by the presence/absence of vegetation if light does not reach the actual soil surface. As well, the surface of the expansive clay soils of the Condamine River floodplains rises and falls as the soils wet up/dry out. This change in elevation is often spatially variable across the floodplain due to differential water entry and subsequent use resulting from uneven precipitation and overland flows, and presence/absence of growing (transpiring) crops. This and variations in surface hydraulic roughness due to presence/absence of crops can influence flood flows, with the result that actual flood flow paths may not be as modelled. Thus, given the inherent inaccuracy in the elevation data and possible changes in flow paths over time, there is a question mark on the model(s) outputs and the choice of location and number of culverts as presented may well be incorrect. To be fair, it is noted that updated LIDAR data will be acquired for the whole model domain to facilitate model updates during the detailed design phase to overcome the discrepancies between the LIDAR data sets used for the hydraulic modelling (Appendix Q1, p.82).	Again, it would appear premature for ARTC to call for construction tenders before the substrate identification, upgraded modelling and any necessary changes to design are completed.	<p>As detailed within Appendix T1: Hydrology and Flooding Technical Report - Volume 1, various sources of LIDAR have been utilised to inform hydraulic modelling including 1 m ARTC LIDAR, SRTM data and third-party data where available. It is acknowledged that the vertical accuracy of LIDAR used is variable depending on the data source. Detailed survey of the alignment corridor is proposed to be obtained during the Detailed Design stage of the Project to accurately represent the terrain, and associated drainage lines, to allow appropriate placement of cross drainage structures. It is considered that the adopted LIDAR utilised as part of the revised draft EIS hydraulic modelling is of sufficient accuracy for a reference design.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as detailed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p>
89	89.036	Community Group	Hazard and Risk	Erosion	The list of hazards in Section 19 (Introduction) is incomplete. Another natural hazard that can affect risks from the project during all phases is soil type, particularly saline and sodic soils. As well, the statement Permanent alteration to land form and topography remains a medium risk due to the potential for loss of soil resources through erosion and disturbance of existing contaminated land during the construction phase of the project is correct as far as it goes. Agricultural land has a high ongoing risk from erosion during floods particularly when the soil surface is bare. Erosion prone areas include those immediately downstream of rail cross-drainage works, those upstream of the rail corridor due to lateral drainage along the line and soil conservation works both upstream and downstream in and adjacent to the rail corridor.	As such the statement above should include this ongoing risk not only during the construction phase. During construction and operation, further hazards include erosion and compaction of soils within the rail corridor itself and temporary work areas, together with damage to existing soil conservation structures including waterways.	<p>Detailed soil survey and mapping has been conducted to inform the revised draft EIS. The risks associated with the various soil types that have been mapped within the Project footprint are discussed in detail in Section 4.5 of Appendix J: Soil Assessment Report and summarised in Section 9.4.2 of Chapter 9: Land Resources.</p> <p>It is not the intention of Chapter 21: Hazard and Risk to duplicate the assessment of risk where this has been presented in detail elsewhere in the revised draft EIS.</p> <p>Acknowledging that soil type is a risk to the Project, a reference to this risk has been provided in Section 21.1 (Scope of chapter) and Table 21-15 (Natural hazards) of Chapter 21: Hazard and Risk, with cross-reference to locations of detailed risk assessment in Appendix J: Soil Assessment Report and Chapter 9: Land Resources.</p>	<p>Chapter 9: Land Resources</p> <p>Section 9.4.2</p> <p>Chapter 21: Hazard and Risk</p> <p>Section 21.1</p> <p>Table 21-15</p> <p>Appendix J: Soil Assessment Report</p> <p>Section 4.5</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.037	Community Group	Hazard and Risk	Erosion	Table 19.2 is incomplete and should also include Soil Conservation Guidelines for Queensland (DSITJ, 2015).	These Guidelines provide information on soil degradation and practical tools for its prevention by water erosion. They also provide tools and techniques to remediate degraded areas. Other publications that could be included are Marshall, 1988, Knowles-Jackson and McLatchey, 2002 and QDNR, 1999.	Soil conservation plans are described in detail in Chapter 9: Land Resources. Refer to Table 9-1 and Section 9.4.4 and 9.5.5 for information on soil conservation plans.	Chapter 9: Land Resources Table 9-1 Section 4.4.4 Section 9.5.5
89	89.038	Community Group	Hazard and Risk		Table 19.6.2 (Environmental receptors) should also include productive soils for cropping, grazing and flora and fauna habitat.	nil.	Section 21.4 of Chapter 21: Hazard and Risk has been amended to include productive soils for cropping, grazing as land use and infrastructure receptors (Section 21.4.3) and flora and fauna habitat listed as an environmental receptor (Section 21.4.2).	Chapter 21: Hazard and Risk Section 21.4 Section 21.4.2 Section 21.4.3
89	89.039	Community Group	Hazard and Risk	Overland flow/diversion	Table 19.7.1.2 (Flooding, storms and cyclones) should include the words: On the northern floodplains of the Murray-Darling Basin, flooding also occurs from overland flow from adjacent higher land (uplands) and from torrential and storm rainfall over the floodplains themselves as well as, conventional flooding from surcharging of creeks and rivers.	nil.	Wording is amended to Section 21.5.1.2 of Chapter 21: Hazard and Risk: flooding, storms and cyclones.	Chapter 21: Hazard and Risk Section 21.5.1.2
89	89.040	Community Group	Hazard and Risk	Erosion	In Section 19.7, the potential impacts should include: ▶ damage to crops and farm infrastructure such as irrigation works, on-farm access tracks and roads, fences etc. ▶ changes to soil conservation structures (contour banks and waterways) and farm management practices.	nil.	The potential impacts that have been raised are discussed and addressed in Chapter 21: Hazard and Risk as follows: ▶ Damage to crops and farm infrastructure: Section 21.5 of Chapter 21: Hazard and Risk ▶ On farm access tracks and roads: Section 21.5 of Chapter 21: Hazard and Risk ▶ Changes to soil conservation structure and farm management practices: Section 21.5 of Chapter 21: Hazard and Risk	Chapter 21: Hazard and Risk Section 21.5
89	89.041	Community Group	Hazard and Risk	Erosion	In Section 19.8.1 (Mitigation through the initial design phase), Table 19.11 (Initial mitigation measures of relevance to hazard and risk) there is no reference to measures required to address changes to, and impacts on, existing soil conservation measures or upon farm irrigation infrastructure adjacent to the rail corridor except for the Yelarbon flood levee.	The risk of damage to adjacent soil conservation structures such as contour banks and waterways and farm irrigation infrastructure along with increased soil erosion downstream of rail cross-drainages associated with flooding should be assessed and shown in Table 19.13 (Impact assessment for potential impacts associated with hazard and risk). There is a further risk that farmers will have to change their soil surface management practices (and associated machinery) to counteract any increased overland flows and should be compensated for this as part of any make-good arrangements.	A summary of mitigation measures that are relevant to soil conservation measures and farm irrigation infrastructure is presented in Table 21.16 of Chapter 21: Hazard and Risk. Detailed soil conservation measures are presented in Appendix AB: Earthworks Strategy and Draft Soil Management Plan.	Chapter 21: Hazard and Risk Table 21.16 Appendix AB: Earthworks Strategy and Draft Soil Management Plan
89	89.042	Community Group	Outline EMP		Our comments here relate to Chapter 22 (Outline Environmental Management Plan, OEMP) specifically with regard to Section 22.3 (Roles and responsibilities), Table 22.4 (Proposed mitigation measures Land resources) and Table 22.13 (Proposed mitigation measures Hydrology and flooding). It is noted in Table 22.1 that, if a soil conservation plan requires modification, it is put forward that this would be progressed in consultation with QDNR (now DoR). As outlined above, given the demise of the Soil Conservation Branch of the QDNR (or earlier Departmental versions), there are very few personnel within that, or other, departments with the adequate expertise to carry out such a role. A similar situation arises during the Construction stage with regard to auditing of the Construction Environmental Management Plan (CEMP). It is noted the Coordinator-General is responsible for administering the State Development and Public Works Organisation Act 1971 (Queensland) and must approve the Outline CEMP (Table 22.1, Section 22.6.3). As that department does not have the necessary resources and qualified personnel to provide advice on all aspects of the CEMP, presumably other Departments will be called on to provide assistance. It is doubtful whether those Departments have adequate resources and expertise to carry out those tasks either. Therefore, it is not clear as to who will oversee the adequacy of a proposed Operation Environmental management Plan (OEMP) in relation to land degradation issues.	nil.	The Construction Environmental Management Plan and Operation Environmental Management Plan must be reviewed and endorsed by the Environmental Monitor prior to commencement of relevant stage of the Project. Once endorsed by the Environmental Monitor, both the Construction EMP and the Operation EMP will be provided to the Coordinator-General. Should the Coordinator-General determine that the Project can proceed, and then impose conditions for the Project, then the Coordinator-General may also state the responsible entities for particular conditions. The resourcing of various government departments is not a matter for ARTC. However, ARTC will confirm the currency Soil Conservation Plans that may be impacted by the Project. ARTC will consult with Department of Resources (DoR) in addition to the holders of each soil conservation plan and affected stakeholder. Any amendments to a Soil Conservation Plan, if required, would be progressed in consultation with a Certified Professional Soil Scientist, approved by DoR and the holder of the Soil Conservation Plan (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
89	89.043	Community Group	Outline EMP		It is noted that during the Pre-Construction stage, impacts from flooding must be determined at all drainage structures and waterways affected by construction works (Table 22.13). For instance, the change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event. Whilst it is noted that flood levels and velocities outside the corridor are to be examined, there is no mention of soil erosion and/or sedimentation which will be some of the obvious impacts.	It is recommended these potential impacts be assessed using the proposed upgraded flood models.	Any design modifications during detailed design will be subject to re-runs of the updated existing flood models, to demonstrate continued compliance with the design objectives of the Project, including for extent and time of inundation, afflux, hazard and flow velocities. The Project has adopted the flood impact objectives (FIO) established by the International Independent Panel of Flood Experts (Expert Flood Panel) for its design and construction. The Draft Outline EMP (Chapter 24: Draft Outline Environmental Management Plan) has adopted this work in addressing the Erosive Threshold Velocities for natural ground surfaces on a site-by-site basis. Performance criteria for a range of surfaces is provided and will apply to Pre-Construction Activities and Early Works, as well as Construction works. The detailed design will address and strive to achieve the FIO within the impact assessment area. Erosion and Sediment controls will be installed for Project infrastructure, and will be monitored and refined for each stage of the Project (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
89	89.044	Community Group	Outline EMP		Table 22.13 also indicates that during the Operation stage, impacts from flooding (scour, blockages, overtopping, culvert damage etc.) will be inspected and any corrective actions carried out. It is not clear, for either the Construction or Operation stages, whether adequate inspections and corrective actions will also be carried out on all affected properties outside the corridor particularly those properties some distance upstream and downstream of the rail corridor.	This group stresses that monitoring, reporting and rectification of any natural resource degradation due to the Project both within and outside of the corridor is essential and that relevant Queensland Government Departments be given resources to oversee these tasks.	Chapter 24: Draft Outline Environmental Management Plan, provides flood impact objectives developed for the Project by the Expert Flood Panel. The detailed design of the Project will address the FIO which deal with changes in peak water levels, duration of inundation, flood flow distribution, flow velocities, flood hazards and event risk management. Both the flood models and the detailed design will be refined in an iterative approach to design development. The outcome of the detailed design process should address and resolve most if not all flood-related impacts directly related to implementation of the Project. Consistent with the finalised Outline Environmental Management Plan, the Operation Environmental Management Plan will require ongoing monitoring and maintenance of Project infrastructure, including drainage structures, to address potential flood damage, such as scours, blockages, overtopping and culvert damage. Furthermore, such inspections will be conducted in accordance with ARTC's Structures Inspection Engineering Code of Practice (ETE-09-01). Infrastructure damage will be repaired as soon as practicable and safe, following a flood event. The attribution of flood damage will require a detailed analysis of each flood event, based on recorded data. The Project cannot reasonably be required to address unrelated flood damage.	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
89	89.045	Community Group	Project alignment	Baseline/backgroun sampling	<p>It is noted in the EIS, Appendix A (Terms of Reference), Section 6.7, that feasible alternate route options are required to be presented and addressed including the criteria used in that assessment and why certain options or courses are preferred or rejected. As this comparison is difficult to find in the EIS, we have attempted to do this using other documents namely GTA, 2020 and AECOM, 2017. The AECOM 2017 Corridor Option Report (review of 4 optional routes) was early in the route selection process and should be reviewed.</p> <p>Further investigations into the Forestry Route via Cecil Plains and other route options have been carried out by this group during 2020, and identified flaws in some of the arguments presented. There are some inconsistencies presented in GTA, 2020. For example, the modelled 1% AEP flood level shown in Map 1 (from GTA, 2020) and Maps D1, D2 and D3 (from GTA, 2020) see attached shows the width of flow to be approximately the same at Cecil Plains as at Brookstead (about 12 km), yet Table 1 (again from GTA, 2020) gives the Condamine floodplain at Cecil Plains as 33 km wide. Then, GTA, 2020, (Table 1.1) notes that significant areas within the floodplain remain dry during a 1% AEP flood event inferring the rail line in those areas would not require cross-rail drainages. These reports show that the flood modelling for all cases was carried out using a mix of publicly available LIDAR and SRTM shuttle elevation data see Section 3.6 above. Yet it is intended to acquire updated LIDAR data for the Brookstead route whole model domain to facilitate model updates during the detailed design phase. It is considered that if this is not also done for the Cecil Plains routes, then a like-for-like comparison has not been undertaken. Another inconsistency is in regard to the terrain traversed by alternate routes. In GTA, 2020, Table 2.3, pg. 7 it is claimed that the Cecil Plains routes have more challenging terrain than the currently accepted route. This seems to be in conflict with the long sections shown in Diagram 2 (from GTA, 2020, pg. 35) which shows that the Brookstead route has steeper and higher sections than the alternate routes examined and this is reinforced by Photographs 13 and 14. Further, corridor widths use in the analyses carried out have not been consistent when comparing options. We also believe that not all the costs associated with the construction and operation of the line have been included in the comparisons. For example, there is no mention of the cost of necessary alterations to Soil Conservation Plans anywhere nor the ongoing cost of maintenance and make good arrangements. It is recognised that when selecting a route there should be no unintended impacts on the use and productivity of nearby lands without due compensation. It is assumed that the cost of acquiring land and minimising the length of the route were important selection criteria for the Project team. However, it appears that the cost of specialist works to cross floodplains has not been included, nor the cost of possible class action if inadequately designed works lead to major limitations placed on the use of the floodplains for dryland and irrigated agriculture. During the public consultation phase of the Project in 2018, representatives from ARTC and their consultant indicated that only the Millmerran - Brookstead route was under consideration at the direction of the Commonwealth Government. This indicates there could well be some political interference in the process of selecting the most appropriate route. It would appear that a fair comparison of alternate routes has been not been satisfactorily carried out.</p>	<p>It is recommended that the value of the productive cropping land be given an appropriate weighting when assessing alternate route options, with a view to minimising the alienation of agricultural Land Classes A and B. We recommend that a detailed re-assessment of route options be undertaken with a view to clarifying all relevant issues relating to a number of potential routes within the Ingleswood/Millmerran/Cecil Plains/Welcamp region, including:</p> <ul style="list-style-type: none"> the relationship to the long term land use plan for the region; comparative erosive flooding risks; comparative impact on agricultural properties; number of residential/industrial properties likely impacted; and comparative costs of all possible infrastructure options. 	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it also became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Welcamp precinct and the InterlinkSQ intermodal development (Section 2.8.2).</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for the Project in 2017, the Australian Government announced the base case via Charlton-Welcamp alignment was to be progressed through the Project phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Chapter 2: Project Rationale, Section 2.9.3). Please refer to the Inland Rail B2G Alternative Route Comparison Report for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to the Project.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>
89	89.046	Community Group	Stakeholder engagement		<p>ARTC's public consultation process was guided by the International Association of Public Participation (IAP2) core principles (Section 2.5, Appendix C, Stakeholder Engagement Report) (Inform, Consult, Involve, Collaborate and Empower). It appears that the project so far has only worked with the first four of those principles as there is little evidence of the adoption of the fifth principle - empowerment of the public. Perhaps during the pre-construction phase the other one, empowerment, will come into play. This is particularly so as, in the IAP2 Spectrum, one of the promises to the public is that 'we will implement what you decide'.</p>	<p>We recommend that, as ARTC is only one of the stakeholders involved in this Project, a coordinated approach to planning and works implementation by meaningfully engaging all directly affected stakeholders be adopted.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>ARTC notes that since the draft EIS and stakeholder submission, two workshops have been held with the submitter in 2022 and 2023 to present updated Project reference design, including cross drainage design, culvert design and other geotechnical components. Stakeholder engagement with the submitter also comprised of a presentation of the findings of Soil Assessment Report and the results of the draft Independent International Panel of Experts for Flood Studies (the Flood Panel). This engagement will continue through Detailed Design and Pre-Construction Activities and Early Works stages. Chapter 24: Draft Outline Environmental Management Plan, notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures.</p>	<p>Chapter 6: Stakeholder Engagement Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 5.3</p>
89	89.047	Community Group	Surface Water	Scour protection	<p>We found some inaccuracies and omissions in some of the design drawings presented as part of the EIS Appendices. As an example, we found, in Design Drawings, Part 1, pg. 49 - a contoured catchment to a natural depression at approximately chainage 121.5 km, discharges across a 3.5+ m cutting without any drainage works shown. Another area of concern is where the proposed rail line crosses Back Creek (chainage 127 km). The proposed corridor alignment shows the rail line crossing Back Creek about 1 km downstream of the Back Creek realignment carried out at the Millmerran Power Partners Commodore Mine. Implementation of this realignment by the mine operators has recently been completed in accordance with Water Licence Number 104534 (a licence to interfere with flow by diversion) issued under provisions of the Water Act 2000. That approval specified the width of Back Creek to be 300 m wide between containment levees. The Back Creek floodplain bridge at 127 km should be at least 300 m wide in accordance with the above approval (and probably wider) at this point and not the 230 m shown in Design Drawing Part 1, pg. 51. We understand that there will be modifications and amendments to these design drawings during the detailed design phase of the Project, and a need to clarify specifications, sizes and positions of items such as cross drainage structures.</p>	<p>However it is imperative that all stakeholders have an opportunity to peruse and understand what is intended by those drawings and amendments be made as necessary, prior to construction.</p>	<p>The revised reference design does not require permanent diversion of any watercourses, as defined under the Water Act 2000 however two trapezoidal diversion drains are expected to be required for the permanent diversion of mapped waterways under the Fisheries Act 1994.</p> <p>As detailed in Section 18.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 13.5.2 of Chapter 13: Surface Water of the revised draft EIS, one trapezoidal diversion drain is provided from Ch 120.77 km to Ch 121.43 km to divert runoff originating from the west away from the Project where the proposed rail is in cut. The rail in cut intersects a mapped waterway at Ch 121.43 km, and this diversion drain connects this waterway to another one at Ch 120.77 km. The diverted flow returns to the original flow path 750 m downstream of the Proposed alignment.</p> <p>An additional trapezoidal diversion drain is provided at Ch 192 km to slightly alter the flow path of the unnamed tributary of One Mile Gully to accommodate the proposed rail embankment. The rail embankment intersects the mapped waterway at Ch 192 km, and this diverted flowpath runs for 200 m long at Ch 192.2 km before crossing the alignment obliquely. The diverted flow returns to the original flow path 200 m downstream of the Proposed alignment. Due to the level of detail of the reference design drawing package, these diversions have been identified by the design team but has not yet been shown on the design drawings.</p> <p>The inclusion of the Back Creek Diversion Project has not been considered as part of the hydraulic modelling. As part of the Detailed Design of Inland Rail, projects that are likely to affect the local hydrology and floodplain behaviour, and that is likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority, and where applicable, designs reviewed to account for any change in flooding behaviour.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Chapter 13: Surface Water Section 13.5.2 Appendix T1: Flooding and Hydrology Technical Report - Volume 1 Section 1.4 Section 18.2.3</p>
90	90.0001	Private	Social Impact Assessment	Property Devaluation	<p>The project did not come up when the submitters did their due diligence when buying their property, which is located within the 'focused area of investigation'. The project has affected their capacity to take out a loan and reduced the value of their property. The submitters state they are not entitled to compensation.</p>	<p>Nil.</p>	<p>The revised draft EIS is unable to provide advice on individual property values. The 'focussed area of investigation' is a corridor of approximately 2 kilometres width extending approximately 1 kilometre either side of the rail alignment with variations for topography etc. Being within the area of investigation doesn't mean that a property would necessarily be impacted by the Project.</p> <p>The revised draft EIS is unable to comment on property owners' specific financial circumstances or any relationship between personal financial circumstances and the Project.</p> <p>There is no legislative requirement to pay compensation for a loss in property value unless the Project intended to acquire land of that property.</p>	<p>N/A</p>
90	90.0002	Private	Social Impact Assessment	Operational rail noise	<p>The submitter's home is about 600 m from project and is concerned about the impact operational rail noise will have on their health and well being. Noise travels very easily in a country setting with no barriers.</p>	<p>Nil.</p>	<p>Assessment of rail noise is detailed in Appendix W: Noise and Vibration Assessment - Railway Operations which indicates that the predicted noise levels would exceed the noise assessment criteria requiring mitigation measures to be investigated for some sensitive receptors (Section 10). At a distance of 600 metres, assessment of operation noise impacts indicates that exceedance of noise criteria is unlikely, however detailed noise contour mapping and assessment has been undertaken to identify those sensitive receptors where noise exceedances may be experienced and that would require noise mitigation measures (Appendix D and Appendix F of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The assessment presented in Appendix W: Noise and Vibration Assessment - Railway Operations of the revised draft EIS concludes that based on the predicted noise levels and the remoteness of the sensitive receptors, feasible and reasonable measures to suitably reduce railway noise impacts are expected to be limited to property controls such as architectural property treatments and upgrades to property fencing. Mitigation measures are discussed in Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Sensitive receptors located on land within the Project footprint would be acquired to enable construction of Project. Beyond this distance, noise mitigation measures will be investigated and implemented in consultation with affected property owners.</p>	<p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 10 Section 16 Appendix D Appendix F</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
90	90.0003	Private	Air Quality	Water quality	Water used for the household could become contaminated from dust generated by the project. Dust will also impact on filters and films of dust will cover the inside of the submitter's home.	Nil.	<p>Whilst the construction and operation of the Project will result in emissions to air, the assessment of the Construction Works and Operations stages has determined that the impact to sensitive receptors, including the landholder's dwelling, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). The assessment of construction has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. It is expected that these adopted mitigation measures would also limit any potential dust deposition within households. Overall, with the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts for impacts to health and nuisance/amenity will be low or negligible.</p> <p>The operational air quality assessment determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in Chapter 12: Air Quality) for all pollutants. The assessment determined that the worst affected (highest cumulative prediction) receptor for deposited dust is receptor R539. The predicted maximum cumulative dust deposition level at R539 was 50.1 milligrams per square metre per day (mg/m²/day), which is well below the air quality goal (120 mg/m²/day), and represents 41 per cent of the goal.</p> <p>Based on the results of the assessment, dust emissions from the Project are not expected to result in significant impacts and will not impact on filters, or cover the inside of dwellings with films of dust.</p> <p>The air quality assessment also quantitatively investigated potential impacts to tank water quality during the operation of the Project. As noted in Chapter 12: Air Quality, Section 12.5.1, predicted pollutant concentrations were more than a thousand times lower than the drinking water guideline values prescribed by the <i>Australian Drinking Water Guidelines</i> (National Health and Medical Research Council and National Resource Management Ministerial Council 2022) for all pollutant species of concern.</p> <p>Based on the results of the assessment, impacts to tank water quality are not expected to be significant.</p> <p>Further information on the results of the Construction Works and Operations stage assessment on impacts to air quality and tank water quality are presented in Chapter 12: Air Quality, Section 12.5, Section 12.6.3 of the Chapter present the mitigation measures which have been recommended for the Construction Works stage of the Project. The recommended mitigation and management strategies will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p>	Chapter 12: Air Quality Section 12.5 Section 12.6.3 Chapter 24: Draft Outline Environmental Management Plan
90	90.0004	Private	Traffic and Transport	Road safety	Submitter lives on a crest and is concerned about construction traffic going past their property creating dust and causing a hazard when entering and exiting their property.	Nil.	<p>The potential risk of dust emissions has been assessed in Appendix R: Air Quality Technical Report for the Project stages, Detailed Design, Pre-Construction Activities and Early Works and Construction Works. Proposed mitigations for dust generation from earthworks, blasting, clearing and grubbing, construction activities, concrete batching and exposed areas within the construction footprint include but are not limited to:</p> <ul style="list-style-type: none"> Development of an Air Quality and Dust Management Plan prior to construction commencing. The Plan will include the multiple measures, tailored to be specific to the construction methodology (detailed in Appendix R: Air Quality Technical Report, Section 8.3, Table 8-2) Implementation of controls to prevent/minimise dust generation during activities involving excavation or disturbance of soils or vegetation, or handling ballasts Determination of which dust controls to apply in a given instance will be guided by the objective to minimise the use of water during construction to that absolutely necessary (Appendix R: Air Quality Technical Report, Section 8.3, Table 8-2). <p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties (Appendix R: Air Quality Technical Report, Section 8.3 Table 8-2).</p> <p>The agreements may include:</p> <ul style="list-style-type: none"> Measures to minimise property impacts, including on agricultural operations Specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible Measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities Required adjustments to affected structures. <p>ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix R: Air Quality Technical Report Section 8.3 Table 8.2
90	90.0005	Private	Surface Water		Submitter concerned about project impacts on the feed quality of their livestock and the health of livestock water flow for their dams.	Nil.	<p>The revised draft EIS assesses water quality impacts against the ANZG guidelines for 95% species protection of water quality and EPP (protection of aquatic ecosystems) which are typically more stringent in terms of guideline values for assessing water quality than drinking water quality guidelines. Noting this, Chapter 13: Surface Water, Section 13.6.2, Table 13-16 details the mitigation and management measures that will be undertaken in detailed design, informed by detailed water and hydrology assessments and in conjunction with the contractor's CEMP. These are expected to confer protection to aquatic system environmental values in addition to providing the protection required for human use (as an environmental value).</p>	Chapter 13: Surface Water Section 13.6.2 Table 13-16
90	90.0006	Private	Surface Water	Erosion	Submitter concerned that the project will change the flow of water and cause erosion or damage to their existing contour banks.	Nil.	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIO's, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures (Section 22.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p> <p>The flood modelling and drainage assessment methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 22.3
91	91.0001	Private	Project alignment		The proposed design has a curvature of just 800 m, which is too tight and much less than the Queensland standard of 2200 m.	At the very least a curvature not less than 1200 m should be adopted.	<p>The submitter has raised an important point regarding horizontal curvature requirements in railway track design. ARTC basis of design standards have been summarised in Section 5.4 of Chapter 5: Project Description, which discusses the parameters used for design to meet the Inland Rail Program service offering.</p> <p>The development of the Basis of Design has been informed by relevant ARTC and Australian standards which form the minimum requirements for which designs are produced. As specified in the Basis of Design, 1,200 m radius curves have been designed, which are technically compliant for 1800 m long trains achieving the desired speed of 115 km/h.</p> <p>ARTC firmly believes that the rail alignment design is both technically compliant and safe. We have taken all necessary measures to ensure that the design meets the required standards and guarantees the safety of train operations.</p>	Chapter 5: Project Description Section 5.4
91	91.0002	Private	Project alignment		There are reverse curves with a radius of 1200 m between 71 km and 77 km as shown on the Future Freight maps.	Avoid so called 'reverse curves' which are two or more curves in close proximity where the train moves in one direction, and then another.	<p>The submitter has raised an important point regarding "reverse curves" in railway track design. Reverse curves refer to sections where the direction of alignment curvature changes in an opposite direction (or S-shape), typically without or with a minimal straight Section in between. It is acknowledged that careful design and consideration are required for reverse curves to ensure safe and efficient train operations. The curvature and transition between reverse curves are required to prevent issues such as excessive lateral forces on the train or potential derailment. The design must adhere to engineering standards governing rail alignment and safety.</p> <p>As per Appendix B1: Design Drawings, the locations identified by the submitter, specifically "between Ch 71 and Ch 77," include two 80 m long transitions and a 292 m long tangent (straight track) between the curves. This configuration is technically compliant with the Inland Rail Basis of Design and allows 1800 m long trains to achieve the desired target speed of 115 km/h.</p> <p>The use of reverse curves in railway design enables designers and rail authorities to closely follow the natural contours of the land, minimising the need for extensive earthworks and reducing the overall environmental impact. Additionally, in this specific location, the implementation of reverse curves allowed for a less skewed angle when crossing the road-rail interface of Millmerran Inglewood Road, thereby improving safety.</p> <p>ARTC firmly believes that the rail alignment design is both technically compliant and safe. We have taken all necessary measures to ensure that the design meets the required standards and guarantees the safety of train operations.</p>	Appendix B1: Design Drawings
91	91.0003	Private	Project alignment	Level crossing	The Future Freight maps show a crossing of the Millmerran to Inglewood Road between 71 km and 77 km. The Exec Summary notes Table 6 Road interface treatments included in the reference design and Table 3 List of bridges.	Include a detailed list of all level crossings too.	<p>The Executive Summary provides an overview of each of the chapters included within the revised draft EIS. The Executive Summary provides a summary of road rail interface treatments in the revised reference design including level crossings and grade separated crossings.</p> <p>Road-rail interfaces are described in Chapter 5: Project Description, Section 5.4.8 and their locations displayed in Appendix AA: Traffic Impact Assessment, Figure 1.2. Proposed public road-rail interfaces and proposed treatments included in the revised reference design are provided in Chapter 5: Project Description, Table 5-14.</p>	Executive Summary Chapter 5: Project Description Section 5.4.8 Table 5-14 Appendix AA: Traffic Impact Assessment Figure 1.2
91	91.0004	Private	Project alignment		The current ARTC crossing loop ruling length is 1800 m. Class I railroads in Canada are no moving to 3600 m.	At least 2700 m for crossing loop lengths should be used on new construction for the project.	<p>The revised draft EIS investigations are limited to the impacts of trains of 1,800 metre (m) length. As stated in Chapter 5: Project Description, Table 5.4, for Inland Rail and the Project:</p> <ul style="list-style-type: none"> The reference train is of 1,800 m length The performance specification for crossing loops is 2,200 m length to accommodate 1,800 m trains. <p>The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains are not part of the proposal for which approval is being sought.</p> <p>Moving to 3,600 m trains would be reliant upon the maturity of Inland Rail network volumes warranting more efficient, longer and heavier train. Design alterations such as the length of crossing loops and software upgrades to signalling systems would be required, which are not part of this approval process. The transition to 3,600 m long trains is driven by market demand and may occur in the indeterminate future, which is why it is unsuitable for it to form part of the EIS assessment.</p>	Chapter 5: Project Description Table 5.4
91	91.0005	Private	Project alignment		Project does not meet the standards agreed for the interstate rail network in the longer term.	The Project should meet the agreed standards, along with increased clearances to allow double stacking of containers: <ul style="list-style-type: none"> axle loads up to 21 tonnes a maximum speed of 125 km/h and an average speed of 100 km/h at axle loads between 21 and 25 tonnes a maximum speed of 100 km/h and an average speed of 80 km/h. 	Road-rail interfaces are described in Chapter 5: Project Description, Section 5.4.8 and their locations displayed in Appendix AA: Traffic Impact Assessment, Figure 1.2. Proposed public road-rail interfaces and proposed treatments included in the revised reference design are provided in Chapter 5: Project Description, Table 5-14.	Chapter 5: Project Description Section 5.4.8 Table 5-14 Appendix AA: Traffic Impact Assessment Figure 1.2
91	91.0006	Private	Project alignment		60 kg per metre will be used on this Section of the railway. This is commended.	Nil.	ARTC note the support of the use of 60 kg rail.	N/A
91	91.0007	Private	Project alignment		The project proposes for all but 7 km of the 216 km length be dual gauge track. Submitter suggests two more cost effective alternatives.	Viable alternatives are available and are in need of urgent review.	<p>As described in Chapter 5: Project Description, Section 5.4.1, the Basis of Design has been developed across the Inland Rail program. The purpose of this design framework is to ensure consistency in design requirements and parameters across the Inland Rail Program.</p> <p>The Border to Gowrie Section of the Inland Rail Program comprises of dual gauge track to accommodate both standard gauge and narrow-gauge trains. This design enables seamless interoperability between the new Inland Rail infrastructure, the existing QR network, and their respective operators. The primary goal is to meet the operational needs of existing services in Queensland while also facilitating the transportation of freight between Melbourne, Brisbane, and various intermodal hubs.</p> <p>It is important to note that the operation of the QR network and any upgrades or modifications to it fall under the jurisdiction of the Department of Transport and Main Roads, acting as the rail authority. If there are proposed modifications that go beyond the scope of the current Inland Rail Program, such as upgrading from narrow gauge to standard gauge, the appropriate course of action would be to directly submit those proposals to the respective rail authority. The submitter may not fully understand the costs involved in the alternatives, such as upgrading the QR narrow gauge to standard gauge beyond the Project limits, and the potential negative impact on business opportunities in Queensland by limiting the dual gauging to the QR South Western Line between Kildonan and Whetstone.</p>	Chapter 5: Project Description Section 5.4.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
91	91.0008	Private	Project scope		The project should be capable of conveying passengers.	Nil.	Inland Rail will be open for any accredited operator to run a train along the rail line, once operational. The Business Case is based upon operators transporting freight (domestic goods) across a range of sectors to our cities, such as fresh food, packaged goods, hardware, white goods, and bulk goods. Inland Rail is freight infrastructure, however, the decision to run passenger services will be a matter for each State Government or for private operators. ARTC, the operators of Inland Rail, have a long history of working with Government and private operators to ensure passenger trains have access to the national rail network. This will continue to be the case for Inland Rail; however, due to the lack of available passenger stations along the alignment, it has not been factored into our assessments.	N/A
91	91.0009	Private	Air Quality		Reduction of emissions are considered as important, but appear to be lightly treated in the Exec Summary for the EIS. The project would result in a reduction in emissions (CO2 equivalent) of about 250,000 tonnes per annum.	Nil.	The Project, and the Inland Rail Program as a whole provides the opportunity to lower freight transportation emissions by providing for a mode shift from freight to rail. Transportation of freight via the Inland Rail Program is expected to use approximately one-third of the fuel when compared to transportation of the same volume of freight via existing road routes. Reduction in fuel usage and greater efficiencies in freight transportation will result in a significant overall reduction in greenhouse gas emissions. The Executive Summary and Chapter 25: Conclusions have been updated to recognise these sustainability Project benefits.	Executive Summary Chapter 25: Conclusions
91	91.0010	Private	Economics		External costs are important yet do not appear to be addressed in the Exec Summary of the EIS. Submission outlines two broad scenarios: 1. Inland Rail does not go ahead, and continued reliance on high levels of road freight. 2. Inland Rail proceeds to good engineering standards.	Project should be construction to North American Class 1 railroad standards.	ARTC acknowledges, due to the nature of the incremental assessment approach adopted for this revised draft EIS, that a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with the Queensland Government, costs have not been included in the Appendix Y: Economic Impact Assessment technical report. The North American Class 1 railroad standards are not applicable in Australia. ARTC will comply with all relevant Commonwealth and State legislative requirements in relation to the design, construction and operation of a transport freight infrastructure Project.	
92	92.0001	Private	Land Use and Tenure		Need to ensure access is provided across the rail corridor as the corridor severs off the best black soil farming country, creek frontage and water sources for the entire property. This farming land is also used to grow stock feed which is particularly critical in times of drought.	Need to secure access to the bottom half of their farm once the corridor is in place, and need to secure a definite and continuous water supply.	As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Potential impacts on agricultural uses and activities are described in Chapter 8: Land Use and Tenure, Section 8.5.1. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. As detailed in Table 8-51 (Section 8.6.3) of Chapter 8: Land Use and Tenure, ARTC will continue to work with directly affected landowners whose property would be partially or fully acquired for the Project regarding land acquisition following the EIS process. ARTC's strategy to reduce the impacts of property acquisition on landowners, tenants and their families include: <ul style="list-style-type: none"> Consult directly affected landowners and tenants who would need to relocate as the result of the Project's land acquisitions, to identify their specific needs and concerns and refer them to services that can support them in the relocation process if required Confirm property-specific management measures Provision of a relocation support team who will provide information, liaison and if necessary, service referrals to residents who need to relocate Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Section 8.6 of the revised draft EIS for further detail.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6 Section 8.6.3 Table 8-51
92	92.0002	Private	Surface Water	Directly impacted landowner	Want to ensure they will have access to the same amount and quality of water as they currently do. The corridor will sever their current water sources from the remainder of the property. Can their current water entitlement be transferred to a new bore if no access provided to current bore.	Need to secure access to the bottom half of their farm once the corridor is in place, and need to secure a definite and continuous water supply.	It is acknowledged that the submitter's property will be substantially impacted by the Project. ARTC is in the process of consulting with landowners to determine an appropriate make-good strategy on a case-by-case basis. Through this process, the measures developed for each impacted property will be unique and commensurate with the level of impact realised. <u>Groundwater bore</u> Where a groundwater bore is expected to be decommissioned or have access/usage impaired as result of the Project, 'make good' measures will be agreed in consultation with the affected landowners during detailed design. An overview of the proposed groundwater bore 'make-good' process is presented on Figure 15-31 (Section 15.7.4) of Chapter 15: Groundwater. If the landowner does not accept the 'make good' assessment (either whether there is an impairment in the first place, or the level of impairment), ARTC will: <ul style="list-style-type: none"> Advise the landowner that they are entitled to obtain an assessment from a suitably qualified person (SQP) Advise the landowner that ARTC will pay their reasonable costs Provide ARTC's bore assessment to the landowner for review by the landowner's SQP Advise landowners of their expectations as to the reasonable costs of obtaining a bore assessment. <u>Surface water storages</u> The detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner (Chapter 13: Surface Water, Section 13.6.2 Table 13-16). Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).	Chapter 13: Surface Water Section 13.6.2 Table 13-16 Chapter 15: Groundwater Section 15.7.4 Figure 15-31
92	92.0003	Private	Land Use and Tenure	Severance of agricultural land	The rail corridor will sever off the best farming country and creek frontage of the entire property. The compensation needs to take into account all factors not just current land value (lost income over time, inconvenience, livelihood, possible devaluation of whole property). Corridor is going to resume rich black soil creek flats. This is the best soil which cannot be replaced.	Need to secure access to the bottom half of their farm once the corridor is in place, and need to secure a definite and continuous water supply.	Potential impacts on agricultural uses and activities are described in Chapter 8: Land Use and Tenure, Section 8.5.1. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties (including compensation requirements) will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2 and 8.6.3). Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption as well as any damage caused by severance or injurious affection to the balance land and disturbance cost. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises (Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51). This has included the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. Refer to Chapter 8: Land Use and Tenure, Section 8.6 of the revised draft EIS for further detail.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Section 8.6.3 Table 8-51
92	92.0004	Private	Noise and Vibration	Mitigation measures	How is the noise going to be managed/mitigated? Two houses on their property are approximately 265 m from the train line. This may make them unrentable.	Nil.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). Based on the owner's provided address in the submission, the owner's property is identified with a receptor ID 2008349. The operational railway modelling results have indicated the $L_{eq(24hr)}$ and the SEM criteria are not triggered for this receptor. The modelling results are further discussed and detailed in Section 10, Appendix D, and Appendix E of Appendix W: Noise and Vibration Assessment Railway Operations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 10 Section 17 Appendix D Appendix E
92	92.0005	Private	Social Impact Assessment	Land acquisition/compensation	As a landowner the process is taking too long and we need certainty to provide security for future planning and to provide stable emotions surrounding land acquisition.	Nil.	ARTC acknowledges that the duration of the design and EIS process has resulted in stress and uncertainty for landowners whose property may be acquired. ARTC has met with affected landowners to explain the status of the land acquisition process and the likely timing for acquisition processes to commence (i.e. post EIS approval). With the exception of early acquisitions by ARTC based on demonstrated hardship, the majority of land required for the Project will be acquired for the Project by Department of Transport and Main Roads under the <i>Acquisition of Land Act 1967 (Qld)</i> . However this can't commence until the Project is approved. The acquisition and consultation processes for the Project are outlined in Chapter 8: Land Use and Tenure and Appendix E: Consultation Report. A full list of properties expected to be impacted by the Project are outlined in Appendix F: Impacted Properties.	Chapter 8: Land Use and Tenure Appendix E: Consultation Report Appendix F: Impacted Properties
93	93.0001	Private - Brookstead	Stakeholder engagement	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project.	The SIA Survey should be repeated.	This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Section 4.3 notes that the survey did produce not produce a statistically valid report for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. The Social Impact Assessment (Appendix X: Social Impact Assessment Technical Report) has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the SIA study area and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix E: Consultation Report Section 4.6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
93	93.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is not yet available. 	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
93	93.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Section 5.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.5 Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
93	93.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>
93	93.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 14 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
93	93.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
93	93.0007	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> Concern raised with respect to the community consultation program and the claim in the EIS SIA, that the SIA engagement is inclusive of all interested stakeholders, yet the Pampas Rural Neighbourhood Watch Committee has not been approached by ARTC or consulted with in any way. The Pampas Rural Neighbourhood Watch Committee note that they have not been listed as an Impacted Community Group within their community (Appendix C, Table 2.2). The submitter states that given past performance of ARTC's lack of professional communication and ineffective engagement strategies, together with an approach that is devoid of empathetic and sensitive consideration of community mental health and well-being, they do not have confidence in their ability to oversee or develop a detailed Community Wellbeing Plan. 	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The Wellbeing Plan must be developed by an independent facilitator working independently of ARTC as their stakeholder engagement has been unsuccessful and has had a negative impact on community health and well-being. The draft EIS is incomplete as indicated in Table 23.5. The true social impact on the communities of Pampas, cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>ARTC notes that it has undertaken extensive engagement with residents in the Pampas area. The list of community groups in the revised draft EIS has been updated to include the Pampas Rural Neighbourhood Watch Committee.</p> <p>As the submitter has noted, during the Project's Detailed Design stage, ARTC will work to finalise the Project's Community Wellbeing Plan, including further stakeholder consultation, and detailing measures that addressing impacts on local amenity, character, cultural landscapes, cohesion or connectivity. This commitment is noted in Appendix AC: Proponent Commitments and detailed in Appendix X: Social Impact Assessment Section 8 outlines the Project's Social Impact Management Plan (SIMP).</p> <p>Design is an iterative process and landowners have been provided with information as it becomes available. As noted in the Proponent's Statement of Commitments, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>Chapter 24: Draft Outline Environmental Management Plan notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures, and provide support to stakeholders and communities that are facing change due to the Project, as well as other relevant tasks.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
93	93.0008	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Pampas Rural Neighbourhood Watch Committee raises concern with respect to the SIA stating that the rates of crime in all three SA2s were well below the rate for Queensland, however the Pampas Neighbourhood Watch group has already noted increased activity around assessment and planning phases including ARTC and contractors within the local community. There have been instances of trespass where contractors have entered private property without land access agreement. There have been requests from local residents to ARTC to have all contractors vehicles clearly labelled so that increased activity can be validated as IR related, and monitored by the local neighbourhood watch group. The submitter states that it is essential to maintain current safety standards and low crime rates within the community, and the submitter notes that contractors constantly disregard this request. There is genuine concern within the Pampas Neighbourhood watch group that work camps and contractor engagement through construction phase will erode the safety standards and low crime rates which are currently experienced in the small, cohesive rural community. Pampas Rural Neighbourhood Watch Committee notes that no specific risk avoidance or mitigation measures have been addressed in the EIS around community safety due to increased construction activity, thus contravening TOR 11.140. 	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The draft EIS is incomplete as indicated in Table 23.5. The true social impact on the communities of Pampas, cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>ARTC expects a high standard of professional conduct and ethics in our business, and safety is our number one priority. All ARTC employees, directors, contractors and consultants must comply with the ARTC Code of Conduct, with breaches resulting in disciplinary action including dismissal or termination of contract. There is no evidence to suggest that non-local construction workers will contribute to increased crime in local towns. Appendix X: Social Impact Assessment, Section 7.4.7 notes that ARTC will employ strategies to reduce concerns about, and potential impacts on, community safety including:</p> <ul style="list-style-type: none"> Enforcing a Code of Conduct containing requirements for positive behaviours and respect for local residents and businesses applying to all contractor and Project personnel Ensuring that the Principal Contractor has appropriate workforce conduct policies and procedures, complemented by complaints mechanisms which ensure fast and effective resolution to any issues experienced Appropriate authorisation procedures and means of identification for personnel accessing private property <p>Prior to undertaking field work, all contractors and subcontractors are required to participate in an induction conducted by ARTC or representative. This includes the land access process, and behavioural expectations in the field, including branding of vehicles and engaging with stakeholders. All incidents, including contractors inadvertently accessing an incorrect property, are reported to the ARTC stakeholder engagement team to follow up with the landowner. ARTC responds to complaints from community members in line with the ARTC Complaints Management Handling Procedures, and all stakeholder issues are recorded, categorised and analysed, and responded to within set timeframes, with the minimum standards outlined in Appendix E: Consultation Report, Table E-5.</p> <p>Additionally, with regard to non-resident workforce accommodation, ARTC will require the Principal Contractor to develop an Accommodation Management Plan, which will include a Section detailing how the non-resident workforce accommodation will be managed to avoid impacts on nearby landowners and communities, including management of workforce behaviour (Appendix X: Social Impact Assessment, Section 8.4.4).</p> <p>The timing for development of the Community Wellbeing Plan as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that:</p> <ul style="list-style-type: none"> The Project's detailed design may change the location or nature of impacts requiring mitigation Stakeholders need the opportunity to understand specific impacts before they can confirm priorities for implementation Councils and communities have a range of interests in responding to Inland Rail, with time needed to consider local priorities ARTC is unable to make further financial commitments until after the Project evaluation is completed. <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing plan during the revised draft EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 6.1.</p> <p>Additionally, ARTC has sponsored 'Living in Place', an independent survey run by social research specialists, to provide a statistically valid and ongoing monitor of community values and experiences, as well as an exploration of residents most pressing local area concerns as they relate to the liveability of their local area. This monitoring tool will be initiated in the Project Approvals and Corridor Acquisition stage of the Project and will enable all local stakeholders to build an understanding of top local area concerns, how they change over time, and how they compare beyond, across and within their Local Government Area.</p> <p>Appendix X: Social Impact Assessment, Section 8.5.6 has been updated in this regard.</p>	<p>Appendix E: Consultation Report Table E-5 Appendix X: Social Impact Assessment Section 6.1 Section 7.4.7 Section 8.4.4 Section 8.5.6</p>
94	94.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
94	94.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6</p>
94	94.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Section 5.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1</p>
94	94.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 1 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4</p>
94	94.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the TOR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
94	94.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
95	95.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
95	95.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
95	95.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Section 5.1.3 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p>
85	95.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
95	95.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report, Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
95	95.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>A range of targeted engagement tools were used to inform the SIA, including the Social Impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p> <p>Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable, and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3.</p> <p>There has been ongoing engagement with the communities, businesses and local road users along the alignment during the development of the revised draft EIS, and changes to the reference design have been made in response to stakeholder input and feedback. Details of traffic and transport consultation outcomes are in Appendix E: Consultation Report, Section 5.5.</p> <p>The reference design is an iterative process, and stakeholder engagement is ongoing. As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
96	96.0001	Community Group	Traffic and Transport	Level crossing	Level Crossing - safety with heavy vehicles	Active level crossing east of Sawmill Road-Suttons Road	<p>Appendix AA: Traffic Impact Assessment, Section 5.2.3 discusses the Construction Works stage road-rail interface assessment and required mitigation.</p> <p>With regard to the level crossing at East Sawmill Road/Suttons Road, the existing crossing is a passive level crossing, with gravel approaches on both sides.</p> <p>The proposed upgraded treatment of Sutton Road crossing will be a passive control crossing to the required standards of AS1742.7. Additionally, the Project is upgrading the road approaches to the required geometrical standards and sight distance requirements to ensure compliance with engineering standards. The crossing will also be temporarily closed during the Construction Works stage to upgrade the crossing. In addition, road safety audits will also be required to be undertaken based on the design and based on as-constructed conditions.</p> <p>The revised reference design provides sufficient stacking distance to accommodate for the largest design vehicle (36.5 m Road Train). As per AS1742.7 a distance comprising the design vehicle plus a safety factor of 5 m stopped at the intersection without fouling the tracks is required. Stacking of >200 m is available.</p> <p>In addition to this specific safety measures for the given location, there a number of project-wide safety requirements for all road rail interfaces which detailed in the remainder of the aforementioned Section of the Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2.3</p>
97	97.0001	Private	Land Resources	Severance of agricultural land	Project will impact prime agricultural land. Concerns about stability of the line and that the line crossing flood plain in the widest area.	Prime agricultural land should not have a rail line built on it.	<p>As described in Chapter 2: Project Rationale of the revised draft EIS (Section 2.8-2.10), a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that there will be a loss of agricultural land that cannot be avoided. Chapter 8: Land Use and Tenure, Tables 8-31 and 8-32, have been updated for the revised draft EIS, detailing land to be sterilised due to the revised alignment. The Project will sterilise productive agricultural land within the Project footprint, which has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1.</p> <p>Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 percent of Class A land, 0.02 percent of Class B land, and 0.01 percent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 percent of Class A land, 0.22 percent of Class B land, and, 0.19 percent of IAA land <p>Where the loss of agricultural land could not be avoided, refinement of the horizontal alignment was considered (among other environmental, social, cultural, economic and technical constraints) to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. ARTC will continue to engage with affected landowners to minimise impacts on existing agricultural practices.</p> <p>Regarding concerns about the flood impacts, Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Table 7-43 Condamine River - Summary of flood impacts on private land outside the rail disturbance footprint, presents a summary of private properties located outside the rail disturbance footprint with potential Flood Impact Objectives (FIO) exceedances due to the potential Project rail impacts. Section 7.5, Appendix T1: Hydrology and Flooding Technical Report - Volume 1 provides a summary of key impacts, exceedance justification and mitigation measures. The hydraulic impacts in the local catchments are considered 'localised' compared to regional flood impacts due to the shorter time of flood inundation, shallower depths and smaller flood extents.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Table 8-31</p> <p>Table 8-32</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 7.5</p> <p>Table 7-43</p>
97	97.0002	Private	Social Impact Assessment		Submitter is concerned one of his houses will be uninhabitable due to noise and vibration from the railway.	Pick another route where less people are affected.	<p>The EIS Terms of Reference (see Appendix A2: Terms of Reference Cross Reference Table) require the revised draft EIS to assess the nominated route, which was selected after extensive analysis and consultation, as described in Appendix E: Consultation Report.</p> <p>Where noise or vibration would affect the amenity of houses, mitigation measures would be triggered, and would be selected on consultation with the property owner.</p>	<p>Appendix A2: Terms of Reference Cross Reference Table</p> <p>Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
98	98.0001	State Agency	Social Impact Assessment		<p>Accommodation Management Plan. The department supports most of the EIS proposals outlined in the Accommodation Management Plan (AMP) in 15.9.4 to manage impacts on affordable housing and short-term accommodation and the related monitoring framework Section outlined in Table 15.26.</p> <p>However, the department notes that the displacement of households from residential properties required by this project and related impact mitigation proposals for them are not documented in the AMP. Further it is noted that the EIS provides no breakdown of the tenure of the residential properties to be acquired because of this project.</p> <p>Consequently, the CEMP and CWP would appear to have been prepared in the absence of required data, with the former focusing primarily on liaising with, and managing impacts for, landowners (potentially owner occupiers and landlords) and the latter addressing support for landowners and tenants should they request assistance.</p> <p>This tenure information is required for the comprehensive assessment of project impacts and formulation of more complete impact mitigation proposals given historically tight rental markets in the affected Councils and the very limited current capacity of local region townships to absorb new rental demand.</p> <p>The tenure of residential properties required for acquisition needs to be identified in the EMP's detailed design phase of refining the permanent project impact footprint so it is available to inform the likely need for an upgraded AMP, CEMP, CWP and monitoring framework.</p> <p>Given current challenging market conditions, the department considers that the proponent in this phase needs to determine the number of tenants the property acquisitions will displace and the cost of a tenant support program (if tenants are identified) on the basis of the number of tenants and a commitment to proactively assist them to find alternative accommodation (inclusive of relocation and associated costs). Thus, if displaced tenants are identified, the proponent will be able to put in place an upgraded program for delivery by either a principal project contactor or a community organisation that will more comprehensively and proactively address household displacement.</p> <p>Accordingly, it is recommended that this matter be addressed via a condition in any project approval granted by the Coordinator General.</p> <p>In addition, it is recommended that ongoing compliance with the resultant plans and the related monitoring framework elements stemming from this requirement be subject a condition of any project approval granted by the Coordinator-General (CG).</p>	<p>A CG condition of approval requiring the proponent to determine in the detailed design phase the number of tenants project property acquisitions will displace and the cost of a tenant support program (if tenants for displacement are identified) on the basis of the number of tenants and a proponent commitment to provide staff and funds to proactively assist them to find alternative accommodation (inclusive of relocation and associated costs).</p> <p>This above condition should include a clause, that in the event of displaced tenants being identified in the projects detailed design phase, the proponent will provide an upgraded AMP, CEMP and CWP and monitoring framework incorporating a commitment to fund a tenant support program based on this condition for delivery by either a principal project contactor or a suitable community organisation.</p> <p>A CG condition requiring the proponent to conform with the resultant AMP, CEMP, CWP and the related monitoring framework elements upon the completion of work required by the above condition.</p>	<p>The Accommodation Management Plan addresses workforce accommodation. Relocation of residents and support for the residents is addressed as part of the Community and Stakeholder Engagement measures in Appendix X: Social Impact Assessment, Section 8.2.2. ARTC will provide assistance to residents who are displaced by property resumption activities, including tenants.</p> <p>On the basis of the proposed revised reference design and consultation with landowners to date, ARTC anticipates that the land acquisition requirement will include up to 30 residential dwellings, requiring affected households to relocate. Approximately three of the affected dwellings are rented to tenants who would also need to find alternative accommodation (Appendix X: Social Impact Assessment, Section 7.1.2). The currently very tight rental market is noted, however the requirement for three new rental dwellings is not a major requirement.</p> <p>As noted in the Department's submission, land acquisition requirements may change during the detailed design process. Consultation between the Constructing Authority and specific landowners regarding impacts on properties and the compensation payable will be undertaken during the Detailed Design stage. These two processes may affect the number of residents, including landowners and tenants, who would relocate.</p> <p>Prior to conclusion of the Detailed Design stage, and consequent to the outcomes of the Department of Transport and Main Roads' negotiation with landowners, the Project will confirm the number of tenants and the number of landowners who would need to relocate, in order to calibrate the level of assistance required, e.g. the number of tenants who would require the support of tenancy services to relocate, and the level of assistance services required from ARTC to support relocating tenants and other residents. If landowners or tenants who would need to relocate identify a need for support, ARTC will consult with Department of Communities, Housing and Digital Economy (DCHDE) regarding access to DCHDE programs and any need for any additional funding for a locally based community organisation to assist residents to access alternative accommodation and support services, with funding arrangements to be agreed between DCHDE and ARTC. The social impact assessment (SIA) has been updated in this regard (Appendix X: Social Impact Assessment, Section 7.1.2 and 8.4.2).</p>	<p>Appendix X: Social Impact Assessment Section 7.1.2 Section 8.2.2 Section 8.4.2</p>
99	99.0001	Private	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
99	99.0002	Private	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilersie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran.</p> <p>The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
99	99.0003	Private	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
99	99.0004	Private	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to and surrounding sensitive receptors.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6</p>
99	99.0005	Private	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property values. b. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	nil.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
99	99.0006	Private	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
99	99.0007	Private	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Flood risk assessments have been performed for a material distribution centre at Whatstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Chapter 5: Project Description Section 5.6.4 Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6
99	99.0008	Private	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
99	99.0009	Private	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan
100	100.0001	Private	Landscape and Visual Amenity		The railway will be built on an embankment 9 to 15 metres high, which will ruin the rural aspect of the submitter's property and the township of Pittsworth. ARTC has a responsibility to avoid social impacts such as this, especially if there is no way of mitigating or managing it. There are other suitable routes that have been proposed.	Reassess the alignment with serious consideration of the negative impacts at Pittsworth.	The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers. ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.8 and 2.9 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95
100	100.0002	Private	Traffic and Transport	Road safety	Diverting traffic from Dallman Road down Quibet Road will bring more local traffic to the Quibet Road -Pittsworth/Oakey Road intersection creating more risk of accidents.	ARTC to justify diverting traffic from Dallman Road down Quibet Road	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.9.4 explicitly discusses the diversion from Dallman Road onto Oakey Pittsworth Road. This Section details the rerouting assumptions that have been made and the impacts of the diversion on active and public transport, sight distance, link capacity, intersection performance, turn warrant requirements and safety. In each case, justifications of the diversion and required mitigations are included. Based on the impact assessment and intersection analysis undertaken in the study, the Project will have negligible impacts on the traffic performance of Oakey Pittsworth Road and its intersections with Gore Highway and Quibet Road. Furthermore, the Project is not expected to have significant impacts on public transport operation and active transport on this road and its surrounding road network. From a traffic operation viewpoint, therefore, no upgrades to this road and its intersections with Gore Highway and Quibet Road are proposed as part of this assessment.	Appendix AA: Traffic Impact Assessment Section 5.9.4
100	100.0003	Private	Stakeholder engagement		Submitter attended several community meetings and was unable to ascertain answers to their simple requests including why Dallman Road cannot be reopened back onto Locherba Road.	nil.	The revised reference design shows that the access from Dallman Road across the proposed Border to Gowrie rail line to the Gore Highway would be provided via Quibet Road and Oakey Pittsworth Road (see Section 5.9.4 in Appendix AA: Traffic, Transport and Access and Appendix B1: Design Drawings). There is no existing formed road between Dallman Road and Lochaber Road. The design and realignment of roads and road rail interfaces is determined by a number of factors including local government requirements for maintaining connectivity of existing roads, and future proofing the road network. Design of the realignment of Quibet Road was done in consultation with Toowoomba Regional Council to meet local road design requirements.	Appendix AA: Traffic, Transport and Access Section 5.9.4 Appendix B1: Design Drawings
100	100.0004	Private	Traffic and Transport	Level crossing	Many level crossings are proposed, which is against the policy of the Office of the National Rail Safety Regulator and Qld's Department of Transport and Main Roads because they are an unacceptable risk to public safety.	Insist the grade separated crossings are built wherever technically possible.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope. In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
100	100.0005	Private	Traffic and Transport	Level crossing	ARTC is inappropriately using the ALCAM tool to inform choices of where to build new level crossings. According to its own website, the ALCAM tool is intended to prioritise the upgrading and removal of existing level crossings, not to justify the construction of more.	Insist grade level crossings are built wherever technically possible.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR Level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
100	100.0005	Private	Traffic and Transport		Train movements along the whole rail line will be coordinated by ATMS, which they claim is a software package still under development. I am not comfortable using untested software on a project of this scale. At least one Section of the Inland Rail is operational in NSW, they clearly have an interim solution.	ARTC to elaborate fully on their interim solution and the testing that will be required prior to the ATMS software taking over.	<p>Appendix AA: Traffic Impact Assessment, Section 3.1 includes discussion of the use of the ATMS signalling system.</p> <p>The Project will be operated using Advanced Train Management System (ATMS), a communications-based safe working signalling system currently being developed by ARTC. The system will provide significantly upgraded capabilities to the rail safety by providing positive train control.</p> <p>Prior to being rolled out the ATMS safe working system will be required to demonstrate its safety and functionality to receive the accreditation by the Rail Safety Regulator. This will involve demonstrating its suitability on existing ARTC corridors prior to implementation to Inland Rail. Should the ATMS development schedule be delayed, an existing ARTC safe working system will be temporarily implemented.</p>	Appendix AA: Traffic Impact Assessment Section 3.1
100	100.0006	Private	Traffic and Transport		Train movements along the whole rail line will be coordinated by ATMS, which ARTC claims is a software package still under development. Submitter is not comfortable with untested software being used on a project of this scale. At least one Section of the Inland Rail project is operational in NSW, ARTC clearly has an interim solution.	ARTC to elaborate fully on their interim solution and the testing that will be required prior to the ATMS software taking over.	<p>Appendix AA: Traffic Impact Assessment, Section 3.1 includes discussion of the use of the ATMS signalling system.</p> <p>The Project will be operated using Advanced Train Management System (ATMS), a communications-based safe working signalling system currently being developed by ARTC. The system will provide significantly upgraded capabilities to the rail safety by providing positive train control.</p> <p>Prior to being rolled out the ATMS safe working system will be required to demonstrate its safety and functionality to receive the accreditation by the Rail Safety Regulator. This will involve demonstrating its suitability on existing ARTC corridors prior to implementation to Inland Rail. Should the ATMS development schedule be delayed, an existing ARTC safe working system will be temporarily implemented.</p>	Appendix AA: Traffic Impact Assessment Section 3.1
100	100.0009	Private	Noise and Vibration	Operational rail noise	WHO's guidelines are based on the science relating noise nuisance with medical conditions.	Condition ARTC to follow WHO guideline regarding rail noise at night.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
100	100.0010	Private	Noise and Vibration	Mitigation measures	Submitter believes that noise cannot be effectively mitigated at their property because the rail will be elevated near their house. The draft EIS states that there is no provision in the Acquisition of Land Act for ARTC to pay compensation to non-impacted land owners, however they may legally purchase any land they choose.	It should be a condition of the EIS that ARTC be required to offer to purchase any land where they cannot mitigate the nuisance noise.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the Construction Works and Operations stages of the Project. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). DTMR's Interim Guideline requires that ARTC provides reasonable and practicable noise mitigation - there is no requirement for properties to be purchased for noise impacts.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. The revised assessment is included in Sections 7, 8, 9 and 10 within Appendix: W Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 7 Section 8 Section 10 Section 17
100	100.0011	Private	Groundwater	Private groundwater bore/s	Submitter relies on bore water for everyday living. Draft EIS has not taken unregistered bores into account, and even states that without this added variable their models have a "high degree of uncertainty".	Require post compliance monitoring and a feasible plan to supply water to residents in Quibet Road in the event that deep cuts cause unexpected large draw down.	<p>ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project (water bores - under the Water Act). This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging, etc (Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey. Revised draft EIS Chapter 15: Groundwater, Section 15.5.4 and Section 15.7.4 have been updated accordingly with groundwater users, potential make-good policy and measures, and detailed in Table 15.20. ARTC is engaged with licenced users/landowners to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/substitution make-good solutions are not required (Section 15.7.4 and Table 15.20 of Chapter 15: Groundwater, Table 8.1 Appendix U: Groundwater Technical Report).</p> <p>Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (Chapter 15: Groundwater, Section 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring during the Construction Works and Operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project. The proposed groundwater management and monitoring program (GMMP) is outlined Chapter 15: Groundwater, Section 15.7.3 and provides a detailed approach to monitoring for impacts during construction.</p>	Chapter 15: Groundwater Section 15.4.4 Section 15.5.4 Section 15.7.3 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Table 8.1 Table 8.2
100	100.0012	Private	Groundwater	Private groundwater bore/s	Where will ARTC source water for construction? ARTC states their preference is to privately purchase water from allocation holders. They have given no indication that they have made overtures to owners of large allocations, or the likelihood of holders being induced to sell. Residents at Pittsworth and Brookstead cannot afford any interruption to groundwater, and all allocations are currently fully subscribed.	Require the construction water management plan to form part of the EIS rather than deferring it to detailed design.	<p>As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. The current hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, trading or purchasing of existing allocated entitlements will be pursued in the first instance through a water broker. Section 5.6.24 of Chapter 5: Project Description of the revised draft EIS details the findings of the current construction water procurement process. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
100	100.0013	Private	Social Impact Assessment	Property Devaluation	The project will ruin the visual amenity from the submitter's home, potentially cause the submitter's groundwater bore to fail or become contaminated if acid rock drainage is caused by the deep cuts proposed upstream from the submitter's property, and cause loud intermittent noise. For these reasons, the project will devalue the submitter's property.	Nil.	<p>The EIS is unable to provide advice on individual property values.</p> <p>Appendix X: Social Impact Assessment, Section 7.1.6, acknowledges that the intensification of the rail corridor in the Project's brownfield sections and the location of Project infrastructure in greenfield sections may affect residents' enjoyment of local character and their sense of place.</p> <p>Appendix X: Social Impact Assessment, Section 7.1.5 and 7.1.6, also notes that where operational noise would exceed noise criteria, noise mitigation measures such as architectural treatments would be implemented to reduce noise to below the criteria.</p> <p>ARTC has committed to undertaking an additional bore survey prior to construction of the Project to confirm the presence and location of registered water bores (under the Water Act 2000 (Qld)) and to identify any unregistered bores that may be impacted from the Project. ARTC will then engage with licenced users and landowners with bores to determine an appropriate make-good mitigation strategy on a case-by-case basis. Where drawdown impacts are anticipated in bores that would not otherwise be decommissioned by the Project, ARTC will engage with each licenced user to determine and agree an appropriate mitigation approach, such as monitoring with bore-specific impact thresholds for intervention and 'make good' agreements (see Chapter 15: Groundwater, Section 15.7.4).</p>	Chapter 15: Groundwater Section 15.7.4 Appendix X: Social Impact Assessment Section 7.1.5 Section 7.1.6
100	100.0014	Private	Social Impact Assessment	Property Devaluation	Draft EIS claim that impacts on property values are unknown and that other factors affect property value such as agricultural commodity prices and the perceived value of infrastructure to potential buyers is disingenuous. The rail does not stop at Pittsworth, does not take passengers, and the land in the township does not supply commodities. There are no confounding factors. ARTC takes no responsibility for this, and has made no attempt to avoid it.	Nil.	<p>The EIS is unable to provide advice on individual property values. Appendix X: Social Impact Assessment, Section 7.1.9 notes that property values may be affected by a range of factors related or unrelated to the Project. Impacts to property values would be differential depending on potential buyers' perceptions about potential impacts as well as the actual impacts (such as rail noise). Values may also be affected by factors that are unrelated to the Project, such as supply and demand, agricultural commodity prices, or the effects of other projects. All relevant research the EIS team could identify is presented within Appendix X: Social Impact Assessment.</p> <p>The Project has committed to a wide range of environmental mitigation and management measures to minimise noise impacts, impacts on scenic amenity and changes to connectivity which could otherwise affect property values.</p>	Appendix X: Social Impact Assessment Section 7.1.9

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
100	100.0015	Private	Flora and Fauna	Koala	Koala habitat will be affected. ARTC could not provide submitter with answers on how koalas would be protected.	Require a wildlife management plan that incorporates fauna spotters for the whole alignment and documents the procedure for dealing with rescued fauna, including who will remove them and how they will be transported and released safely.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes, Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during both Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix M: Draft Koala Management Plan.</p> <p>Appendix N: Draft Fauna Management Plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p>	<p>Appendix E: Consultation Report Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 6.3 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
100	100.0016	Private	Flora and Fauna	Terrestrial fauna	Additional work is required in the EIS to address the potential extinction of this species.	The Condamine Earless Dragon will be impacted by the project. It occupies habitat in road reserves. Proposed fencing will not mitigate the effect of train strike compounding the impacts of habitat destruction on population size.	<p>Chapter 11: Flora and Fauna and Appendix O: Matters of National Environmental Significance Technical Report acknowledge that the Project will result in a significant residual impact on the Condamine earless dragon.</p> <p>A standalone fauna management plan has been provided in Appendix N: Draft Fauna Management Plan of the revised draft EIS. The fauna management plan (FMP) outlines the potential impacts of the Project on Matters of National Environmental Significance (MNES) and Matters of State Environmental Significance (MSES) fauna, including the Condamine earless dragon, and proposes a range of avoidance, minimisation and mitigation measures to reduce these impacts.</p> <p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES, and also includes a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the Condamine earless dragon to achieve no net loss.</p> <p>Appendix P: Fauna Connectivity Strategy assesses the impact of the Project on connectivity for four target fauna groups by comparing the connectivity for these fauna groups both pre and post Project. The strategy also evaluates the effectiveness of different mitigation scenarios at restoring ecological connectivity and reducing wildlife mortality, including experimenting with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops at the Detailed Design stage of the Project.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Appendix N: Draft Fauna Management Plan Appendix O: Matters of National and Environmental Significance Technical Report Section 5 Appendix P: Fauna Connectivity Strategy Section 5 and 7 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
100	100.0017	Private	Project scope		There is no solution to move the freight from Acacia Ridge to the Port of Brisbane. The proposed B2G alignment has many significant impacts that could be avoided by a route that avoids Pittsworth, Toowoomba and Brisbane.	Investigate alternative route alignments with fewer impacts.	<p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across the Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p> <p>The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal - heritage, land use and economic impacts) Approvals and stakeholder engagement 12.5: per cent Technical viability: 17 per cent Safety 16.5: per cent Constructability: 12.5 per cent Operations: 16.5 per cent. <p>Australia's population is predicted to increase by 60 per cent over the next 40 years with high levels of growth in South-East Queensland, metropolitan Brisbane and Melbourne. Trains currently run to the port and will continue to do so once Inland Rail is operational; however, trains accessing the Port of Brisbane will not be required to be double stacked as they will be transporting bulk freight such as coal or grain for export. The Australian Government and Queensland Government are undertaking a joint study of options and requirements for port/rail connections that will consider current and future demand and the relationship with the Inland Rail project. Future freight demand is discussed in Chapter 2: Project Rationale, Section 2.2.</p> <p>Trains that will utilise Inland Rail to get to either the Acacia Ridge or Bromelton terminals will not (in the overwhelming majority of cases) carry any products that are destined for export and hence require transfer at the terminal from rail to road. Supply chain operators, including train operators, aim for the most efficient means of transport possible and that is achieved by having trains that consist of freight for specific markets (i.e. domestic or export markets), rather than trains with a mixture of both.</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to the Project and Appendix 4 (p. 109-116) provide a detailed history of routes via Warwick that have been considered over time.</p>	<p>Chapter 2: Project Rationale Section 2.2 Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>
100	100.0018	Private	Flooding - McIntyre Brook	Modelling	The flood risk on the Macintyre floodplain has not been adequately addressed. The Technical Report is not sufficiently comprehensive to meet the Panel's TOR. Additional details are required in relation to the calibration of the flood models, the use of flood frequency analyses completed with respect to other catchments, and the modelling of design events.	Address the Flood Panel's TOR.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2</p>
100	100.0019	Private	Land Use and Tenure		Draft EIS fails to meet TOR 11.71(a) regarding the compatibility of the project with existing and proposed land uses in regional plans and local government planning schemes. The Toowoomba Regional Council Planning Scheme and Planning Code specifically avoid development around Pittsworth, except where the development provides necessary services to Pittsworth. The project will provide no services to Pittsworth and is therefore incompatible. ARTC has not addressed this in the EIS.	Address TOR 11.71(a).	<p>The EIS addresses TOR11.71(a), the regional plan and zoning of land within the relevant planning schemes. When traversing through Pittsworth, the Project footprint follows alongside the Gore Highway minimising further fragmentation of land uses.</p> <p>The revised draft EIS has been updated with further detail from the regional plan and planning scheme zoning, refer Chapter 8: Land Use and Tenure, Section 8.5.4.</p> <p>The Project is being assessed under the Office of the Coordinator-General's Coordinated Project Framework and therefore not bound to the requirements of the Goondiwindi Regional Planning Scheme 2018 and the Toowoomba Regional Planning Scheme 2012. However, the strategic framework, zones, and overlays have been explored to provide a local understanding of the area and assessment of the Project's compatibility with the local government's plans and vision for the region (Chapter 8: Land Use and Tenure, Section 8.5.4).</p> <p>The strategic framework within the Toowoomba Regional Planning Scheme sets policy direction and forms the basis for appropriate development and is critical to the planning initiatives of the local area. The Inland Rail is discussed in the strategic framework, where it is noted the Project will enhance market access and facilitate development within the Toowoomba Regional Council area. With regard to future urban and rural development, the strategic framework outlines areas which will be expanded to facilitate population growth, particularly in the towns of Highfields, Drayton, Westbrook and Toowoomba City. It is not anticipated that the Inland Rail will encroach on these expansion areas, thus mitigating potential conflicts.</p> <p>The Toowoomba Regional Planning Scheme outlines twenty-one different types of zones, where the Border to Gowrie Section of the Inland Rail traverse through five zones, specifically 'Community Facilities', 'Medium Impact Industry', 'Open Space', 'Rural', and 'Township'. Of these zones, the Project most significantly impacts the rural zone, with 2,052.44 ha of rural land being impacted by the permanent disturbance footprint, and 709.91 ha being impacted by the temporary disturbance footprint (Chapter 8: Land Use and Tenure, 8.5.4).</p> <p>The key resource areas located within Toowoomba are contained within the Natural Resources Overlay and are separated into three categories: extractive resources overlay code, agricultural land overlay code, and the water resource catchments overlay code. The only intersection between the Border to Gowrie alignment and the aforementioned overlays is with the agricultural land overlay code (Chapter 8: Land Use and Tenure, Section 8.5.1). As previously noted, the Inland Rail is not obliged to fulfill the requirements outlined by the Toowoomba Planning Scheme, however the potential adverse effects have been identified and minimised.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4</p>
101	101.0002	Private	Social Impact Assessment		Submitter offers to provide: - adjacent area to lease for sit down yard- water supply for project.	Nil.	ARTC encourages the submitter to attend local information sessions which will be held by the Contactor prior to construction, or visit or call an ARTC office for more information.	N/A
101	101.0003	Private	Air Quality		Dust from construction site and access routes.	Water regime to be in place.	<p>Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). The Construction Works stage assessment has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households) in Chapter 12: Air Quality.</p> <p>The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. Recommended mitigation measures include the use of water sprays as dust suppression, restricting vehicle speeds on unsealed roads and covering stockpiles when not in use. With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts for impacts to health and nuisance/amenity will be low or negligible.</p> <p>The recommended mitigation and management strategies for the Construction Works stage of the Project will be included in the Construction Environmental Management Plan (CEMP), and can be found in Section 12.6.3 of Chapter 12: Air Quality.</p> <p>A watering regime is proposed to be implemented as part of the Project to mitigate and manage dust emissions during construction. The use of water application as a dust suppression tool is recommended as a mitigation measure for the Project in Section 12.6.3 of Chapter 12: Air Quality. As a mitigation measure for dust emissions from unsealed haul roads, water applied at a rate of 2 litres per metre squared per hour (L/m2/hr) is expected to reduce dust emissions by up to 50 per cent. Further information on proposed mitigation measures to control construction dust are outlined in Section 12.6.3 of the Chapter 12: Air Quality. These mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Community will be able to utilise the Project 1800 phone line to raise concerns about dust management throughout construction.</p>	<p>Chapter 12: Air Quality Section 12.6.3 Chapter 24: Draft Outline Environmental Management Plan</p>
101	101.0004	Private	Flooding		It has been demonstrated that floodwater will be higher than historically due to railway design. This is a particular issue at 'Culverthorpe' house.	Upgrade flood banks surrounding property.	<p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, as part of detailed design.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2</p>
101	101.0005	Private	Social Impact Assessment	Directly impacted landowner	Impact on farming operation during construction - limitation of crop spraying due to health impact on workers on construction site.	Agreed spraying periods where staff must leave site.	<p>ARTC will work with individual property owners to manage impacts on their operations. Farming operational activities, such as spraying, will be managed through a one-on-one approach with each landowner.</p> <p>Spraying periods is an option that ARTC will discuss with the relevant stakeholders during the Detailed Design stage of the Project. Interruptions to the Project's construction schedule may or may not be warranted. This will be assessed as part of the Project's Work Health and Safety assessments.</p>	N/A
101	101.0006	Private	Social Impact Assessment	Directly impacted landowner	Impact on farming operation during construction - maintaining ability to move water as required around property for irrigation of crops.	Make temporary infrastructure as agreed upon with landholder.	<p>ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants and will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p>	N/A
101	101.0007	Private	Social Impact Assessment	Directly impacted landowner	Impact on farming operation during construction - ability to move machinery across railway line area. To be noted machine shed is on opposite side of railway to large proportion of farming land.	Continuous access across railway area to be maintained during construction.	<p>Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p> <p>ARTC is currently in discussions with the submitter regarding their property. The revised draft EIS is unable to comment on the specifics of individual negotiations and agreements.</p>	N/A

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101	101.0008	Private	Surface Water	Increase in flows	Existing pipes under railway will not be compliant under current proposal.	Replace pipes to be compliant whilst retaining existing function (flow rate).	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs), refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the revised Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1
101	101.0009	Private	Social Impact Assessment	Directly impacted landowner	Current pump site and existing irrigation infrastructure will be within proposed area.	Move pump site to an agreed upon location and rebuild irrigation infrastructure to meet current and future operations.	<p>This issue is noted. Adjustments may be made during the Detailed Design stage of the Project to consider at-property treatments by the appointed contractor.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the acquiring authority The potential for changes to groundwater access. <p>The consultation for the Project is outlined in Appendix E: Consultation Report.</p>	Appendix E: Consultation Report
101	101.0010	Private	Traffic and Transport	Directly impacted landowner	Access after construction across railway area on Gilgai Lane. Access needs to be suitable for large machinery.	Overpass on Gilgai Lane, at least 9 m wide.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>Noting the above, the revised reference design has updated the road rail interface treatment for Gilgai Lane from a level crossing to a grade separation (rail-over-road). This will have a clearance of 5.4 m and a span width of 23 m sufficient for the road reserve. The Project will use Gilgai Lane to access a laydown area for concrete culverts, bridge structures, water, and other construction activities. The intersection is expected to accommodate Over Size Over Mass (OSOM) vehicles to transport precast concrete girders (OSOM mitigations are discussed in Section 5.8.4 of Appendix AA: Traffic Impact Assessment). It is expected that peak right turn construction movements will be approximately 8 vehicles per hour in March 2027, resulting in a total right turn demand of up to 9 vehicles per hour (including background traffic). This intersection will be used for HV construction traffic from 2026-2027 and worker vehicles for the full length of the Construction Works stage of the Project. While this is "temporary", this duration is considered long enough to warrant a permanent upgrade of the intersection to include a short channelised right turn treatment (CHR(s)). This treatment will be further investigated during the Detailed Design stage and confirmed when construction routes and volumes are finalised and take into consideration OSOM turning vehicle requirements.</p> <p>During construction, Gilgai Lane will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans include regular assessment of road safety and road conditions to ensure Gilgai Lane is safe for road users. Appendix AA: Traffic Impact Assessment Section 5.2.2 provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p>	Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.8.4 Appendix BT
101	101.0011	Private	Land Resources	Directly impacted landowner	Removal of trees due to construction.	Financial reimbursement.	<p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to minimise and mitigate impacts on properties. Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the <i>Acquisition of Land Act 1967</i> (Qld). The Department of Transport and Main Roads is the acquiring authority for land for the Inland Rail Project in Queensland. The Department of Transport and Main Roads has the power to acquire or resume property for the purposes of transport, for an incidental purpose, for the purpose of a transport associated development or for a combination of these purposes (Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-49). The Department of Transport and Main Roads will manage the compulsory land acquisition process under the Queensland legislation set out in the <i>Acquisition of Land Act 1967</i> (Qld).</p> <p>Assessment of compensation is undertaken in accordance with Section 20 of the <i>Acquisition of Land Act 1967</i> (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Costs attributable to compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. <p>During construction, land will be acquired temporarily in accordance with the <i>Acquisition of Land Act 1967</i> (Qld). Purchasing or leasing arrangements for these properties will be investigated in consultation with relevant landowners.</p>	Chapter 8: Land use and Tenure Section 8.6.2 Table 8-49
102	102.0001	Private	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
102	102.0002	Private	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
102	102.0003	Private	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
102	102.0005	Private	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas), and the Contractor is currently undertaking due diligence to identify a third site in the Millmerran area.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
102	102.0006	Private	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas), and the Contractor is currently undertaking due diligence to identify a third site in the Millmerran area.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
102	102.0007	Private	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Eilersie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20.5.1</p> <p>Section 20.6</p>
102	102.0008	Private	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
102	102.0009	Private	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft Border to Gowrie EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Ingewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan
103	103.0001	Private	Project scope	Directly impacted landowner	The EIS does not address TOR 11.142. It does not describe the potential risks to people and property that may be associated with the project in the form of a preliminary risk assessment for all components of the project in accordance with relevant standards.	Address TOR 11.142.	As described in Section 21.7, Chapter 21: Hazard and Risk, the initial risk assessment is based on the assumption that the design considerations (or initial mitigation) factored into the revised reference design stage have been implemented. As a result, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the reference design as appropriate and where possible. Mitigation measures and controls that have been factored into the design, or otherwise implemented during the reference design stage for the Project, are summarised in Table 21.15. A compliance check of Chapter 21: Hazard and Risk against TOR 11.142 can be found in Appendix A2: Terms of Reference - Cross Reference Table, which includes references to the applicable sections of Chapter 21: Hazard and Risk.	Chapter 21: Hazard and Risk Section 21.7 Table 21.15 Appendix A2: Terms of Reference - Cross Reference Table TOR 11.143
103	103.0004	Private	Social Impact Assessment	Operational rail noise	International noise guidelines are increasingly stringent despite increasing population pressure because of the growing body of evidence on the burden of disease due to environmental noise. Environmental noise has been linked to post traumatic stress disorder, other mental health issues, cardiovascular disease, and diabetes due to impacts on sleep.	Quantify, describe and avoid the risk of disease due to noise pollution from the project.	The revised draft EIS has been updated to address potential impacts from both construction and operational railway noise and vibration to sensitive receptors along the Project alignment. The updated assessments refer to established noise guidelines and criteria that are in place to protect amenity and health. Construction noise impacts, including from blasting, presented in the revised draft EIS are predicted unmitigated worst-case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). The revised draft EIS construction noise and vibration modelling methodology is conservative and is based on a preliminary construction methodology and worst-case vibration transmission. During detailed design, the construction noise and vibration assessment is to be refined based on a detailed construction methodology, and specific reasonable and practicable construction noise and vibration mitigation measures will be nominated. As per Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 2, reasonable and practicable measures will be taken to minimise noise and vibration impacts on the community. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads (DTMR) Interim Guideline - Operational Rail Noise and Vibration (refer to Section 16.8 of Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). The DTMR Interim Guideline does not require ARTC to provide noise mitigation to comply with international noise guidelines such as the World Health Organisation (WHO) guideline, for instance. However, the potential for sleep disturbance has been assessed as part of the noise impact assessment for the Project. The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 16.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. The revised draft EIS Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16, and Chapter 16: Noise and Vibration, Section 16.10, provide specific noise mitigation measures proposed to control noise at residences. These measures include physical mitigation (noise fences/noise barriers) and property upgrades to existing residences. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the construction stage and through operations. On the basis that the Project has committed to managing noise in compliance with relevant guidelines and standards that protect human health, and in compliance with the EIS conditions of approval, a study on noise pollution and risk of disease was not pursued.	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 16 Section 16.4
103	103.0004	Private	Social Impact Assessment	Operational rail noise	International noise guidelines are increasingly stringent despite increasing population pressure because of the growing body of evidence on the burden of disease due to environmental noise. Environmental noise has been linked to post traumatic stress disorder, other mental health issues, cardiovascular disease, and diabetes due to impacts on sleep.	Quantify, describe and avoid the risk of disease due to noise pollution from the project.	The revised draft EIS has been updated to address potential impacts from both construction and operational railway noise and vibration to sensitive receptors along the Project alignment. The updated assessments refer to established noise guidelines and criteria that are in place to protect amenity and health. Construction noise impacts, including from blasting, presented in the revised draft EIS are predicted unmitigated worst-case 15-minute noise impacts (Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). The revised draft EIS construction noise and vibration modelling methodology is conservative and is based on a preliminary construction methodology and worst-case vibration transmission. During detailed design, the construction noise and vibration assessment is to be refined based on a detailed construction methodology, and specific reasonable and practicable construction noise and vibration mitigation measures will be nominated. As per Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 2, reasonable and practicable measures will be taken to minimise noise and vibration impacts on the community. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads (DTMR) Interim Guideline - Operational Rail Noise and Vibration (refer to Section 16.7 of Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). The DTMR Interim Guideline does not require ARTC to provide noise mitigation to comply with international noise guidelines such as the World Health Organisation (WHO) guideline, for instance. However, the potential for sleep disturbance has been assessed as part of the noise impact assessment for the Project. The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options are discussed in Section 16.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. The revised draft EIS Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16, and Chapter 16: Noise and Vibration, Section 16.10, provide specific noise mitigation measures proposed to control noise at residences. These measures include physical mitigation (noise fences/noise barriers) and property upgrades to existing residences. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the construction stage and through operations. On the basis that the Project has committed to managing noise in compliance with relevant guidelines and standards that protect human health, and in compliance with the EIS conditions of approval, a study on noise pollution and risk of disease was not pursued.	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 16 Section 16.4
104	104.0001	Private	Social Impact Assessment	Directly impacted landowner	Submitter outlines the impacts of removing the existing cattle yard crossing on their Angus cattle breeding and fattening enterprise. Removing and replacing the cattle yard crossing will create inefficiencies that would affect the productivity and profitability of the enterprise. See submission for details.	It is essential that the submitter's property maintain two rail-line crossings, one at the sheep yard complex and the second at the cattle yards.	As noted in Chapter 24: Draft Outline Environmental Management Plan, individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required. ARTC is currently in discussions with the submitter regarding their property. The revised draft EIS is unable to comment on the specifics of individual negotiations and agreements.	Chapter 24: Draft Outline Environmental Management Plan
104	104.0002	Private	Social Impact Assessment	Directly impacted landowner	Submitter outlines the project elements and potential impact areas that identify them and their enterprise.	Nil.	ARTC appreciates that the time required to undertake the EIS process has led to uncertainty for landowners, and has provided information to landowners and other community members wherever available to reduce uncertainty. ARTC will continue consultation with all directly affected landowners to establish the feasibility of mitigation measures where required e.g. changes to stock crossings. The term 'where possible' in relation to landowners' concerns is used in Appendix X: Social Impact Assessment as follows: <ul style="list-style-type: none"> avoidance of farm infrastructure where possible (Section 8.1.8) If land is required only for the Construction Works stage of the Project, and not for the ongoing operation of the rail Project, where possible it will be leased from landowners (Section 8.4.5, Table 8-11) Project aligned to be co-located within existing rail and road corridors where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure (Section 8.1.5, Table 8-2). This is to acknowledge that multiple factors determine the Project alignment and it is not always possible to avoid farm infrastructure and/or private land (leading to a requirement for compensation under the Acquisition of Land Act 1967 (Qld) (Appendix X: Social Impact Assessment, Section 7.1.2).	Appendix X: Social Impact Assessment Section 7.1.2 Section 8.1.5 Section 8.1.8 Section 8.4.5 Table 8.2 Table 8.11
104	104.0003	Private	Noise and Vibration	Operational rail noise	Noise predictions at both properties owned by the submitter are above noise assessment criteria. One of the residences is identified as a sensitive receptor. Both properties are identified by ARTC (via correspondence included in the submission) as requiring a review of reasonable and practicable options for noise mitigation.	For the residence south of the rail line, relocate the house and supporting infrastructure to a safe distance prior to construction commencing. For the residence north of the rail line, treatment of the property and creating a shade line buffer will be required to improve both noise pollution and air quality.	The operational railway noise modelling has been updated in accordance with the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The submitter should note that the use of DTMR's guideline may change the predicted noise levels at their dwellings. ARTC will engage directly with impacted property owners on their preferred mitigation measures once the final design is confirmed following project approval. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during the Detailed Design stage. Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 4
104	104.0004	Private	Traffic and Transport	Construction traffic	GTIA state that impact results if traffic exceeds 5%. Current traffic movements on the Yelarbon Kurumbul Road is 21 cars/day. The EIS predicts construction traffic will increase traffic movements on this road by up to 1027.6% in the first year of construction and up to 269.5% in the final year of construction.	Nil.	Revised draft EIS Appendix AA: Traffic Impact Assessment applies a detailed assessment in line with the GTIA. In accordance with Table 6.4 of the GTIA, the assessment considers and assesses impacts to road safety, intersection delay (performance), road link capacity, pavement and transport infrastructure, all on the basis of a 5% comparison. As is correctly identified in the submission, this is the case for Yelarbon Kurumbul Road. In the updated EIS Appendix AA: Traffic Impact Assessment, this includes a percentage increase of 279.1% in the first year of construction and a maximum of 390.9% across the construction period. Thus, a full assessment has been completed of Yelarbon Kurumbul Road and is documented throughout Section 5 of the Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 5 Table 6.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
104	104.0005	Private	Air Quality	Directly impacted landowner	Concerns about fugitive dust emissions, dust generated from construction and emissions from idling and operational locomotives and construction vehicles. The EIS assesses the risk of dust impacts from construction as medium and low due to the rural setting. Submitter states that the risk is high and mitigation measures are necessary.	The house south of the rail line needs to be relocated prior to construction. Mitigation measures listed in Table 11.37 need to be adhered to. The house north of the rail line needs a shade line established along Yelarbon Kurumbul Road to assist in limiting emissions.	<p>The landowners' dwelling has been represented by the sensitive receptors R9 (south) and R10 (north) in the dispersion model developed for the assessment of the Operations stage in Appendix F of Appendix R: Air Quality Technical Report. The construction and operation of the Project will result in air emissions. However, the assessment of the Construction Works and Operations stages has determined that the impact of air emissions to sensitive receptors, including the landholder's dwelling, will not be significant with the inclusion of recommended mitigation measures.</p> <p>Construction dust emissions have been assessed for the potential to impact human health (i.e., airborne dust which can be inhaled) and cause nuisance or amenity impacts (i.e., deposited dust). As discussed in Section 12.3.2 of Chapter 12: Air Quality, gaseous emissions (fumes) from construction vehicles are unlikely to present a risk of significant impact.</p> <p>The Construction Works stage assessment has considered the type of emission sources present during construction, the magnitude of the expected dust emissions, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. With the inclusion of these measures, it is expected that the significance of construction dust impacts to health and nuisance/amenity will be low or negligible based on all factors considered, not just the rural setting of the Project.</p> <p>The assessment of the Operations stage determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in the Chapter 12: Air Quality) within the study area for the Project.</p> <p>Further information on the results of the Construction Works and Operations stage assessments on impacts to air quality are presented in Section 12.8 of the Chapter 12: Air Quality. The recommended mitigation measures are further discussed in Section 12.6.38 of Chapter 12: Air Quality. These mitigation measures are to be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan. The use of shade lines as further mitigation is not required. It is also noted that shade lines are difficult to maintain and are less practical for mitigating construction dust.</p> <p>Based on the results of the air quality assessment, relocation of residential dwellings is not required as predicted pollutant concentrations are all well below the relevant air quality goals at representative receptors.</p>	Chapter 12: Air Quality Section 12.3.2 Section 12.5 Section 12.6.3 Section 12.8 Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Appendix F
104	104.0006	Private	Land Use and Tenure	Directly impacted landowner	Proposed level crossing option 1 at the submitter's property will affect the submitter's ability to manage their mixed farming enterprise. There are currently four crossings, the proposal is to remove two or three of them based on 'safety' reasons. See submission for further details about how the closing crossings will impact the submitter's mixed farming enterprise.	Submitter suggests several options for solutions including keeping the crossings and a response to ARTC's proposal to remove two or three crossings.	<p>ARTC acknowledge the closure of existing level crossings on the South Western line will impact the landowners agricultural enterprise.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.2, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties (Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51).</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property The potential for changes in access to natural resources, such as groundwater and overland flow. <p>Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis using the market value of the land as at the date of resumption. Refer to Chapter 8: Land Use and Tenure, Section 8.6.2 of the revised draft EIS for further detail.</p>	Chapter 8: Land Use and Tenure Section 8.6.2 Table 8-51
104	104.0007	Private	Land Use and Tenure	Directly impacted landowner	Concerned about how to manage stock movements over the rail corridor with up to 25 train services predicted per day. Holding animals at a crossing for any length of time, waiting for a train to pass is impossible. The noise of a train's approach and passing at close proximity will startle the cattle, causing them to run away. Lack of design information for private property level crossings.	<ol style="list-style-type: none"> Large holding yard on the southern side of rail corridor at the level crossings. At the level crossing, the ability to prevent access by stock down the rail corridor as they cross the rail line. 	<p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of landowners' needs regarding access to the properties and the closure of private roads (Chapter 8: Land Use and Tenure, Table 8-51).</p> <p>In the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner.</p> <p>Where large numbers of livestock and high vehicular traffic volumes may coincide, holding yard will be considered during Detailed Design stage. Refer to Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51 of the revised draft EIS for further detail.</p>	Chapter 8: Land Use and Tenure Section 8.6.2 Table 8-51
104	104.0008	Private	Groundwater	Flood immunity	Loss of culvert at Queen Street South. All groundwater will flow to culvert C13. After rain events the groundwater's natural flow north to Brigalow Creek is impeded by the rail line. Submitter outlines several flow on impacts on their property and farm infrastructure.	Mitigation will need to be adequate to prevent flooding.	<p>The Inland Rail Reference Design has been informed by a flooding and drainage assessment to ensure that existing flow paths are maintained, and where necessary, diversions are proposed to ensure continuity of flow, as discussed in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The proposed drainage structures are summarised in Appendix B of this report, and show on the civil drawings in Appendix B1: Design Drawings. During the Detailed Design stage of the Project the cross drainage design will be reviewed to further optimise the design and ensure existing flow paths are maintained.</p>	Appendix B1: Design Drawings Appendix T1: Hydrology and Flooding Technical Report - Volume 1
104	104.0009	Private	Flora and Fauna		The shadelines along the rail corridor are not only of heritage significance but have value in our holistic approach to property management. They provide habitat for animals and protection from the elements for sheep and cattle. Cultivated paddocks at one of the submitter's properties will no longer have any shade.	Re-establish trees in paddocks where they will be removed for the project.	<p>A review of the relevant Commonwealth and State-listed heritage indicated there are no places within 1 km of the rail corridor. There are five locally listed places, one non-statutory QR heritage place and five non-statutory DES Cultural Heritage Information Management System places within 1 km of the Project footprint, two of which are in the impact assessment area. A full list of the registers reviewed are in Section 19.4.2, Table 19-10 of Chapter 19: Cultural Heritage. Identification of Indigenous cultural heritage is occurring in consultation with the relevant Indigenous parties.</p> <p>Chapter 11: Flora and Fauna outlines Project impact mitigation measures which include:</p> <ul style="list-style-type: none"> Minimising the loss of canopy vegetation where possible Clearing extents limited to the area safely and reasonably required for permanent and temporary works, avoiding impacts to native vegetation and habitats, as far as practicable. 	Chapter 19: Cultural Heritage Section 19.4.2 Table 19.10 Chapter 11: Flora and Fauna
104	104.0010	Private	Land Use and Tenure	Cumulative impacts	Impact of the project on the submitter's property is very high. One residence will be unliveable, and the other residence's liveability will be lessened. The management of their farming business could be unviable. Submitter hopes that the theme of 'respect for people, communities and valued places' and 'being a good neighbour' as described in the Sustainability Chapter will ensure suggested solutions are accepted.	Harm needs to be minimised so the submitter's business can continue on their properties.	<p>This issue is noted. ARTC will continue to consult with affected landowner on mitigation measures and solutions.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.2, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties.</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC's strategy to reduce the impacts of property acquisition on landowners, tenants and their families include:</p> <ul style="list-style-type: none"> Consult directly affected landowners and tenants who would need to relocate as the result of the Project's land acquisitions, to identify their specific needs and concerns and refer them to services that can support them in the relocation process if required Confirm property-specific management measures Provision of a relocation support team who will provide information, liaison and if necessary, service referrals to residents who need to relocate <p>Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis using the market value of the land as at the date of resumption.</p> <p>Refer to Chapter 8: Land use and tenure, Section 8.6.2 of the revised draft EIS for further detail.</p>	Chapter 8: Land Use and Tenure Section 8.6.2
104a	104.0011	Private	Social Impact Assessment	Directly impacted landowner	ARTC identifies the key economic impacts of disruption to farm management, and changes in accessibility on connectivity to land. The SIA considers landowner amenity and lifestyle and identifies mental health issues. Much of the wording in sustainability initiatives for property owners includes 'where possible', and that is an unsatisfying outcome. Submitter is living with constant concerns about the viability of their property and their liveability. Succession planning involving growing the business to include children is impossible in the climate of uncertainty. Very difficult to make decisions to proceed. Loss of time for farm work due to negotiations with ARTC.	Nil.	<p>ARTC acknowledges that the time required to undertake the EIS process has led to uncertainty for landowners. ARTC is committed to continuing to consult with all directly affected landowners to provide updates on the Project, its potential impacts and make-good arrangements or compensation processes that will apply.</p> <p>Impacts to existing land use are inevitable when delivering a Project of this scale. However, ARTC has endeavoured through development of the revised reference design, to minimise impacts to land use. Such efforts include co-locating the rail alignment with existing transport corridors and aligning the Project adjacent to property boundaries, to the greatest extent possible, thereby reducing potential fragmentation and sterilisation of agricultural land.</p> <p>Land use impacts of the revised reference design have been assessed in Section 8.5.1 (Chapter 8: Land Use and Tenure) and will be confirmed through the Detailed Design and Project Approvals and Corridor Acquisition stages. Where land use impacts are confirmed, individual property management measures will be developed in consultation with the landowner to reduce impacts to an acceptable and agreeable level. Management measures outlined in Section 8.6 of Chapter 8: Land Use and Tenure will include:</p> <ul style="list-style-type: none"> Individual property mitigation measures developed in consultation with landowners/occupants with respect to the development of detailed design and/or the management of construction on, or immediately adjacent to, private properties. The property mitigation measures will detail required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures, as required. Consultation with landowners will be undertaken to ensure that owners and occupiers are informed about the timing and scope of activities in their area, particularly in relation to potential impacts to access, services, or farm operational arrangements. This consultation will be ongoing throughout construction. Feedback from landowner consultation, including agreed property mitigation measures, will be incorporated into property agreements (or similar), as appropriate. <p>Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the <i>Acquisition of Land Act 1967</i> (Qld) (AL Act). Assessment of compensation is undertaken in accordance with Section 20 of the AL Act. Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance. Costs attributable to compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
105	105.0001	Private	Project alignment		Submitter (a retired railway civil engineer with long experience in railway location in Australia) outlines a shorter, more direct route from Inglewood to Kagaru that would be 50 km shorter than the proposed route and would have fewer environmental impacts and engineering issues. Submitter questions the logic behind placing the alignment west of Toowoomba to service a developing industrial area. Submitter also suggests the Warwick to Bromelton route be reconsidered.	<ol style="list-style-type: none"> All Inland Rail engineering work and land acquisition north of Inglewood be paused pending a review of the route location Commonwealth and Queensland Governments review the agreement covering the Inland Rail route within Queensland to include rail economic considerations with particular reference to the route length An independent expert review the engineering consultant's feasibility studies on a direct route Warwick to Bromelton. 	<p>The industry and freight customers have been consistent in expressing their priorities throughout the route selection process. They highlighted the need for flexibility, interoperability, the importance of suitably located terminals. This feedback is reflected in the service offering, with a clear potential for faster and slower services to meet customer needs (while preserving the core offering of a 24-hour transit time from Melbourne to Brisbane); a clearly specified reliability target of 98%; and clarity around the commitment to interoperability with connections to the NSW Country Rail Network and Queensland narrow gauge network (Chapter 2: Project Rationale, Section 2.4.4).</p> <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through the Project phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006 - 2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to the Project and Appendix 4 (pp. 109-116) provide a detailed history of routes via Warwick that have been considered over time.</p>	Chapter 2: Project Rationale Section 2.4.4 Section 2.8.2 Section 2.9.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
106	106.0001	Private	Traffic and Transport	Workforce accommodation village	Proposed accommodation at Turalin would be housing the workforce further away from the area in which the rail line is being constructed. The road from the Gore Hwy to Turalin is of low quality, narrow and floods frequently. The workforce would need to be transported to the worksites and Millmerran by bus unless staff had their own vehicles, which would put a strain on the limited parking in Millmerran and also put more traffic on an already busy road.	Build the workcamp closer to the construction area in the vicinity of Millmerran Inglewood Road, which allows ease of travel both to the north and south of Millmerran for construction and does not impact more traffic on a minor road. Off duty staff could be bussed into Millmerran for shopping and recreation, and to the daily work sites.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turalin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
106	106.0002	Private	Social Impact Assessment	Workforce accommodation village	The workforce accommodation village proposed at Turalin should be located closer to Millmerran. Existing accommodation in Millmerran is often fully booked during peak times/events but the need for more permanent accommodation is not there to require another motel or caravan park.	Some or all of the work camp could remain after the project end to assist with housing staff brought into Millmerran for the regular maintenance/shut downs of the Millmerran Power Station. This accommodation could also assist with the overflow of tourists who seek accommodation in Millmerran during big events like Australian Camp Oven Festival, and the Darling Downs Eisteddfod.	ARTC applied several criteria for selecting preferred non-resident workforce accommodation sites, including fatigue management requirements, land area requirements and road access. The previously proposed non-resident workforce accommodation facility in Turalin is not being pursued in the revised draft EIS. <p>There are different viewpoints within the community regarding the location of workforce accommodation. Whilst businesses are keen to see the facility based in Millmerran, residents have also identified potential amenity impacts. Additional community consultation regarding the proposed accommodation facilities was undertaken in May 2023.</p> <p>Appendix X: Social Impact Assessment, Section 6.1, Section 7.3 and Section 8.4, have been updated with additional information regarding the workforce accommodation facilities.</p> <p>ARTC plans further consultation with Toowoomba Regional Council to confirm the suitability of the proposed location for the non-resident workforce accommodation facility in the Millmerran area. The facility would be required to comply with Toowoomba Regional Council's conditions of approval to limit the potential for traffic impacts.</p>	Appendix X: Social Impact Assessment Section 6.1 Section 7.3 Section 8.4
107	107.0001	Private	Land Resources	Contaminated land	Opposed to the use of a specific property on Gilgai Lane for construction laydown area B2G-LDN 144.6 due to the wet nature of the area and permanent damage to the site from contamination and compaction. Reinforced by the impossibility of removing contaminated soil from transient contamination substances including oil, fuel, chemical, ballast, gravel and any other contaminants stored on site.	Relocate laydown area to an appropriate site.	As described in Section 5.6.7 of Chapter 5: Project Description of the revised draft EIS, several laydown areas have been identified along the length of the alignment and positioned to avoid or minimise potential impacts to environmental and social receptors. The locations have been chosen to avoid areas within the 1% AEP floodplains where possible. However, by virtue of the requirement of laydown areas for constructing bridges, some laydown areas must be within flood plains and near watercourses or drainage features. In such instances, the following precautions will be taken: <ul style="list-style-type: none"> ▶ The site will be surveyed prior to site establishment to understand the exact extent of potential flooding impact to facilities and storage areas ▶ The earthworks and temporary drainage will be designed to minimise flooding impacts. <p>Site restoration will be undertaken in accordance with:</p> <ul style="list-style-type: none"> ▶ Inland Rail Environment and Sustainability Policy (Appendix C: Corporate Policies) ▶ Border to Gowrie Rehabilitation and Landscaping Plan ▶ A Rehabilitation and Landscaping Management Plan will be developed for the Project, in addition to location and property-specific reinstatement commitments. It will establish location-specific objectives, timeframes and responsibilities for rehabilitation, reinstatement and/or stabilisation works. Opportunities for beneficial re-use of laydown areas will be investigated through consultation with local governments and relevant stakeholders. Refer to Chapter 24: Draft Outline Environmental Management Plan, that outlines ARTC's approach to environmental management. <p>ARTC acknowledge the concerns of some of the laydown areas proposed along the alignment. The laydown areas have been strategically located for the Project to enable robust construction methodologies. ARTC are committed to ongoing consultations with impacted landowners through the Detailed Design and Construction Works stages with the contractor. This will enable the Project to further develop and implement property-specific mitigation measures to avoid or minimise impacts.</p>	Chapter 5: Project Description Section 5.6.7 Chapter 24: Draft Outline Environmental Management Plan Appendix C: Corporate Policies
107	107.0002	Private	Land Resources	Erosion	Concerned about debris collecting on security fencing of proposed alternative laydown area B2G-LDN 144.6 on neighbouring properties diverting water causing erosion and scouring to surrounding properties.	Nil.	ARTC's Fencing Strategy provides for 1.2 m high chain wire (with four rows of barbed wire) fencing to be installed on the rail corridor boundary for the full extent of the rail corridor, with exceptions for environmentally sensitive areas where boundary fencing would be detrimental (e.g. State forest areas and riparian corridors). Standard fauna exclusion fencing will be provided for directing fauna towards crossing structures in accordance with the Fauna Design Guidelines for the Inland Rail. The exception to this is the Condamine River floodplain which will contain guide posts only to demarcate the rail corridor boundary. This way guide posts will not trap any mobilised debris during flood events and cause adverse impacts to surrounding land. For grazing properties the two lower wires will be replaced with a 7 90 30 tight cross over kno mesh and where possible top strands will be plain wire in accordance with the Fauna Design Guidelines. See Appendix P: Fauna Connectivity Strategy for specific details on ARTC's proposed fencing strategy. <p>It is acknowledged that inappropriately placed fencing and/or inadequately designed fencing could cause debris to catch during flood events and impact local drainage performance. Fencing cannot be assessed accurately in hydraulic models to provide meaningful results. During detailed design, specific consideration will be given to this aspect on a case-by-case basis. For example, fencing would not be placed across any culvert/bridge openings, but instead would go up and around the embankment to prevent any obstructions to flood flows. Consultation with affected landowners will be undertaken on a case-by-case basis to ensure that the fencing solution ties in with local farming practices.</p>	Chapter 5: Project Description Section 5.4.12 Appendix P: Fauna Connectivity Strategy
107	107.0003	Private	Land Resources	Contaminated land	Concerned about compaction and contamination of vertosol soils along the rail alignment during construction. These soils are particularly fragile and easily compacted due to its soft nature, especially when wet. The custodianship and care of these highly fertile and uncommon soils cannot be overstated.	Permanent acquisition of land on the construction footprint.	Detailed soil investigations (Appendix I: EMR Search Certificates and Soil Laboratory Certificates) were undertaken for Chapter 9: Land Resources with findings informing soil-specific management measures (including of vertosols) (Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Part B: Soil Management Plan (Section 3)) and to assist detailed design/construction. <p>Contamination risk has also been assessed in Chapter 9: Land Resources, Section 9.5, with mitigation measures to avoid the creation of contaminated land as a result of the Project provided in Section 9.6 (e.g. Contaminated Land Management Plan will be developed by a suitably qualified person, as recognised under the Environmental Protection Act 1994 (Qld), and incorporated into the Construction Environmental Management Plan (CEMP)).</p> <p>Site restoration will be undertaken in accordance with:</p> <ul style="list-style-type: none"> ▶ Inland Rail Environment and Sustainability Policy (refer Appendix C: Corporate Policies) ▶ Border to Gowrie Rehabilitation and Landscaping Plan. ▶ A Rehabilitation and Landscaping Management Plan will be developed for the Project, in addition to location and property-specific reinstatement commitments. It will establish location-specific objectives, timeframes and responsibilities for rehabilitation, reinstatement and/or stabilisation works. Opportunities for beneficial re-use of laydown areas will be investigated through consultation with local governments and relevant stakeholders. Refer to Chapter 24: Draft Outline Environmental Management Plan that outlines ARTC's proposed approach to environmental management. 	Chapter 9: Land Resources Section 9.5 Section 9.6 Chapter 24: Draft Outline Environmental Management Plan Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3 Appendix C: Corporate Policies Appendix I: EMR Search Certificates and Soil Laboratory Certificates
107	107.0004	Private	Surface Water	Erosion	Concerned about erosion and scouring of paddocks below culverts between Pampas and the Condamine River causing a reduction in agricultural production and a dramatic decrease of property valuations.	Ensure design of water entry and exit points of culverts is such to eliminate erosion both up and downstream of culverts make good agreements if erosion and scouring does occur to give landowners confidence.	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIO's, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk (Section 22.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Expert Flood Panel identified additional assessment requirements in relation to managing changes to flood flow velocities. The additional assessments are outlined in Sections 22.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore.</p> <p>Disaster recovery will be carried out in accordance with ARTC's Emergency Management Plan (RLS-PR-044) which provides a work procedure for managing recovery from and investigation of emergencies requiring a significant and co-ordinated response on the ARTC Network. This procedures objective is to ensure that ARTC and Rail Operators have established an integrated strategy for the response to the management of rail emergencies on the ARTC Network (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 21.3).</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 21.3 Section 22.3
107	107.0005	Private	Surface Water	Erosion	Gravelled rail line access road, or any other rock material used in construction, washing into surrounding paddocks during flood events. Gravel washed into paddocks creates operational issues and damage to agricultural machinery.	Make good agreements if displacement of construction material does occur to give landowners confidence.	With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore. <p>Disaster recovery will be carried out in accordance with ARTC's Emergency Management Procedure (RLS-PR-004) which provides a work procedure for managing recovery from and investigation of emergencies requiring a significant and co-ordinated response on the ARTC Network. This procedures objective is to ensure that ARTC and Rail Operators have established an integrated strategy for the response to the management of rail emergencies on the ARTC Network.</p> <p>While the property acquisition process does not provide for compensation for indirect impacts such as cost of replacement/repairs to damaged infrastructure/machinery, the proposal would incorporate environmental management and design features to ensure that potential impacts are managed and mitigated as far as practicable, and erosion and sediment control measures will be undertaken as described in Section 5.6.18 of Chapter 5: Project Description of the revised draft EIS.</p>	Chapter 5: Project Description Section 5.6.18
107	107.0006	Private	Surface Water	Erosion	Concerned about culverts blocking with debris and weeds reducing culvert efficiency and diverting water.	Maintenance program to keep culverts free and open including weed management in consultation with local invested parties inclusion of excess volume capacity in the design of culverts to manage excess water flow when clearing of debris in culverts cannot be accessed during a flood event	With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
107	107.0007	Private	Surface Water	Erosion	Concerned about the impact of rail line fences and security fences at laydown areas collecting debris and diverting water flow causing erosion and altering overland flow of flood water.	Nil.	<p>To limit access to the Project's rail alignment, fencing will be provided for the majority of the rail corridor as described in Section 5.4.12 and Table 5-19 of Chapter 5: Project Description. Fencing will act to protect adjoining lands from trespass and to prevent livestock from gaining access to the railway. Fencing is to extend between the corridor and private lots or property adjoining the railway. Property or land use specific fencing considerations will be discussed with relevant landowners as part of the detailed design process.</p> <p>As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au). Where ARTC propose to construct within the Queensland Rail corridor for all returned works (South Western Line and Millmerran Branch Line), ARTC shall comply with Queensland Rail standards; this includes new and replacement fencing. All existing fencing is proposed to be removed and replaced. Where ARTC are proposing to construct new railway corridor that coincides with road manager or landowner fencing, this will be replaced typically with ARTC fencing procedure, Boundary Fencing ETM-17-02. Where superior fencing is required (for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur) a 1.8 m chain link boundary fence may be provided.</p> <p>Feedback from adjacent landowners indicates that fencing on the Condamine River floodplain:</p> <ul style="list-style-type: none"> Increases the risk of debris being trapped on the fence and causing blockage, potentially exacerbating the risk of flooding impacts and resulting in ongoing maintenance issues Can be washed away in flood events, causing issues to downstream properties and infrastructure and subsequently requires re-instatement. <p>Based on this consultation feedback, fencing of the rail corridor has not been included in the revised reference design across floodplain areas. Instead, guideposts or other alternative means of rail corridor boundary protection will be installed in order to demarcate the rail corridor and prevent access to the rail corridor. The track elevation through these areas will also act as a deterrent to trespass or livestock access to the railway, where this may otherwise occur.</p> <p>It is acknowledged that inappropriately placed fencing and/or inadequately designed fencing could cause debris to catch during flood events and impact local drainage performance. Fencing cannot be modelled accurately in hydraulic models to provide any meaningful results. During detailed design specific consideration will be given to this aspect on a case-by-case basis. For example, fencing would not be placed across any culvert/bridge openings, but instead would go up and around the embankment to prevent any obstructions to flood flows. Consultation with affected landowners will be undertaken on a case-by-case basis to ensure that the fencing solution ties in with local farming practices.</p>	<p>Chapter 5: Project Description Section 5.12 Table 5-19</p>
107	107.0008	Private	Traffic and Transport	Level crossing	Concerned with the proposed Gilgai Lane level crossing; accessibility to the access road leading to the 'Old Grain Shed' behind Pampas Hall; condition of Gilgai Lane and traffic frequency during construction of laydown area; interference to farming operations due to increased traffic frequency and deteriorating condition of Gilgai Lane during construction.	Nil.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>Noting the above, the revised reference design has updated the road rail interface treatment for Gilgai Lane from a level crossing to a grade separation (rail-over-road). This will have a clearance of 5.4 m and a span width of 23 m sufficient for the road reserve. The Project will use Gilgai Lane to access a laydown area for concrete culverts, bridge structures, water, and other construction activities. The intersection is expected to accommodate Over Size Over Mass (OSOM) vehicles to transport precast concrete girders (OSOM mitigations are discussed in Section 5.8.4 of Appendix AA: Traffic Impact Assessment). It is expected that peak right turn construction movements will be approximately 8 vehicles per hour in March 2027, resulting in a total right turn demand of up to 9 vehicles per hour (including background traffic). This intersection will be used for HV construction traffic from 2026-2027 and worker vehicles for the full length of the Construction Works stage of the Project. While this is "temporary", this duration is considered long enough to warrant a permanent upgrade of the intersection to include a short channelised right turn treatment (CHR(s)). This treatment will be further investigated during the Detailed Design stage and confirmed when construction routes and volumes are finalised and take into consideration OSOM turning vehicle requirements.</p> <p>During construction, Gilgai Lane will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans include regular assessment of road safety and road conditions to ensure Gilgai Lane is safe for road users. Appendix AA: Traffic Impact Assessment Section 5.2.2 provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.8.4 Appendix BT</p>
107	107.0009	Private	Groundwater	Private groundwater bore/s	Concerned about drilling impact of foundation structures intercepting shallow aquifers supplying water to local townships and surrounds, including Pampas, agricultural irrigation, stock water and domestic use.	Nil.	<p>The drilling of foundation pilings associated with bridges is unlikely to cause any permanent impacts to groundwater other than temporary impacts during the Construction Works stage. Pilings will be of a sufficient spacing to prevent permanent impact to groundwater flow and will be constructed using the cast in place (CIP) technique where concrete slurry is pumped through a hollow stem auger concurrently as soil/rock is brought to the surface. Only minor volumes of groundwater are anticipated to be brought to surface using the CIP method (e.g.5 to 10 litres per 20 m deep auger hole). No active dewatering is anticipated (see Chapter 15: Groundwater, Table 15-17).</p> <p>Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (see Chapter 15: Groundwater, Section 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and Operations stages of the Project (e.g. quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project. The proposed groundwater management and monitoring program (GMMP), outlined in Chapter 15: Groundwater, Section 15.7.3, details the approach to monitoring for impacts during construction.</p>	<p>Chapter 15: Groundwater Section 15.4.4 Section 15.7.3 Table 15-17</p>
107	107.0010	Private	Noise and Vibration	Operational rail noise	Concerned about residential noise pollution of engine and carriages including horn noise at level crossings.	nil.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS (Section 12.2 of Appendix W: Noise and Vibration Assessment - Railway Operations). The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.10 Chapter 16: Noise and Vibration, Railway Noise Assessment and Mitigation and Management Measures and Section 17 of of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 12.2 Section 17</p>
108	108.0001	Private	Land Use and Tenure	Infrastructure crossings/interaction	Will the controls at road rail interfaces/stock routes allow for the movement of cattle across the rail corridor from grazing paddocks to the stockyards as is the submitter's current practice? See submission for specific property and proposed crossing details.	Respond to submitter query.	<p>The issue is noted. Adjustments may be made during the Detailed Design stage of the Project to consider at-property treatments by the appointed contractor.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>As stated in Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.1, in the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner.</p> <p>Refer to Chapter 8: Land Use and Tenure, Section 8.6 of the revised draft EIS for further detail. Appendix B2: Stock Routes, Figure 1 - 26, shows the current State stock routes and the proposed mitigation measures for existing State stock route movements.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.1 Appendix B2: Stock Routes Figures 1 - 26</p>
108	108.0002	Private	Surface Water	Directly impacted landowner	Part of submitter's property will be resumed for the rail corridor, potentially affecting water access points required for livestock operations.	Confirm whether the submitter will be able to negotiate for change if water access points do not suit their purpose.	<p>Severance and fragmentation of rural properties are considered in Chapter 8: Land Use and Tenure, and the results are summarised in Section 8.5.1 of the revised draft EIS. It is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads.</p> <p>ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progress. In accordance with mitigation measures in Section 8.6 (Chapter 8: Land Use and Tenure), the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners would be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Where the proposal affects internal property access arrangements, input would be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC will consult with relevant property owners/occupants regarding alternative access arrangements, where feasible alternatives are available and identify feasible and reasonable measures to minimise impacts on existing operational arrangements/properties (Chapter 8: Land Use and Tenure, Section 8.6.3).</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.3</p>
108	108.0003	Private	Surface Water	Directly impacted landowner	Submitter's property is located on both sides of the Millmerran/Inglewood Road. Currently pump water from a creek in one property, under the road, to the other property for stock water and limited domestic use. Water pipes will need to be located under the proposed embankment, which could lead to leakage problems for both the embankment and stock water supplies.	Confirm whether alternative arrangements can be made to ensure stock water is accessible.	<p>The Chapter 8: Land Use & Tenure of the revised draft EIS acknowledges that private services and utilities may be impacted by the Project and that resolution to the impact will be determined on an individual case-by-case basis in consultation with landowners during detailed design. The detailed design will be developed to ensure that affected landowners retain access to existing natural resources, including water (Chapter 8: Land Use and Tenure, Section 8.5.1 and Table 8-51).</p> <p>If, following consultation, relocation and/or protection of the water pipe is determined to be the preferred solution, the works will be designed and constructed in accordance with:</p> <ul style="list-style-type: none"> Water Supply Code of Australia (Water Services Association of Australia, 2011) AS/NZS 2566 Buried flexible pipeline: Structural design (Standards Australia, 1998). <p>Alternatively, if impacts to the water pipe cannot reasonably be avoided or mitigated through design, appropriate compensation arrangements will be discussed and agreed with the affected landowner (Chapter 8: Land Use and Tenure, Table 8-51).</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-51</p>
108	108.0005	Private	Landscape and Visual Amenity	Property Devaluation	Proposed Bringally Creek Rail bridge and lengthy embankment will have significant visual and financial impact on the value and outlook of submitter's rural residence.	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered. In order to manage and mitigate potential impacts associated with the Project, several mitigation measures have been proposed for implementation in future stages of Project delivery and are detailed in Section 11.2, Appendix K: Landscape and Visual Impact Assessment. Current mitigation measures outlined in Table 95 of Appendix K discuss potential mitigation measures for embankments and bridges.</p> <p>Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in the revised draft EIS Appendix Y: Economic Impact Assessment (Section 5.5). As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres.</p>	<p>Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95</p>
109	109.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
109	109.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
109	109.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
109	109.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 2.1 Section 4 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
110	110.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
110	110.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6</p>
110	110.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
110	110.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
111	111.0001	Private	Traffic and Transport	Level crossing	There are three proposed level crossings within 60 km between Inglewood and Millmerran. Shows no respect for users of this road.	Get on with your decision making as some people may like to move on with life plans.	<p>ARTC want to acknowledge that along the length of Millmerran Inglewood Road there is only one proposed level crossing and not three level crossings as stated in the submission.</p> <p>EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.7</p> <p>Appendix BT</p>
111	111.0002	Private	Traffic and Transport	Level crossing	Proposed level crossing on the Inglewood side is not in a good location. A previous group suggested an overpass.	Consider one side of Inglewood-Millmerran Road or the other. Consider overpasses to level crossings.	<p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> Fewest farms affected mid-block Fewest farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewest residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> Restriction of access Loss of flora and fauna Changes to bushfire management Weeds and pests Changes to drainage and minimising sediment and erosion Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. <p>EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. This will take into account the highspeed road environment and provide sufficient signage and warning mechanisms for approaching vehicles. ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.7</p> <p>Section 5.8</p> <p>Section 5.9</p> <p>Appendix BT</p>
112	112.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
112	112.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is not yet available. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
112	112.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration – Railway Operations Section 4 Section 17 Section 17.4
112	112.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Appendix X: Social Impact Assessment (Section 8), outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Appendix E: Consultation Report Section 2 Section 2.1 Section 4 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 8
113	113.0001	Private	Traffic and Transport	Level crossing	Concerned about road safety associated with the proposed passive level crossing on Sawmill Road/Suttons Road near Yelarbon.	Install an active level crossing at this location.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.2.3 discusses the Construction Works stage road-rail interface assessment and required mitigation.</p> <p>With regard to the level crossing at East Sawmill Road/Suttons Road, the existing crossing is a passive level crossing, with gravel approaches on both sides.</p> <p>Vehicle queuing related crashes or collision with trains may be exacerbated by the Project at the existing passive level crossing based on the existing road alignment, unsealed pavement, and insufficient sight distance available to approaching vehicles. However, an improved road design has been developed to ensure sufficient stacking distance is available to accommodate for the largest design vehicle (36.5 m Road Train). As per AS1742.7 a distance comprising the design vehicle plus a safety factor of 5 m stopped at the intersection without fouling the tracks is required. Stacking of >200 m is available. Existing stacking is sufficient which would have no impact on crashes with railway train or vehicle from opposing direction crashes. Due to the existing geometry and sight lines crash likelihood may increase to likely.</p> <p>The proposed upgraded treatment of the crossing will be a passive control crossing with formalising of the approach roads to required geometrical standards and sight distance requirements. The crossing will also be temporarily closed during the Construction Works stage to upgrade the crossing to the required standards of AS1742.7. The upgraded crossing will allow for sufficient safety features. In addition, road safety audits will also be required to be undertaken based on the design and based on as-constructed conditions.</p> <p>In addition to this specific safety measures for the given location, there a number of project-wide safety requirements for all road rail interfaces which detailed in the remainder of the aforementioned Section of the Traffic Impact Assessment.</p>	Appendix AA: Traffic Impact Assessment Section 5.2.3
114	114.0001	Private	Traffic and Transport	Road safety	Four lane highway will be too close to three houses. School buses dropping off children will have to manoeuvre another two lanes. The area should be restricted to 60 kph. Traffic has already increased over the last 12 months. There will be no room for mailman to deliver mail if a truck is pulling out of the service station heading to Brookstead.	Highway should be moved over at least 30 m away from homes.	<p>The Harris Road level crossing in Pampas for the draft EIS was developed in consultation with the local community. In July 2019 the Pampas community asked to keep the level crossing as close to its current location as possible to minimise impacts to Pampas Hall, residents and enable continued movement of farming equipment with minimised highway interference. The Project team worked to accommodate these aspects in consultation with road authorities, however further development of the draft EIS reference design found that the Gore Highway required additional turning lanes which resulted in potential road safety and access issues, such as the Caltex service station and properties on the northern side of Gore Highway. See Appendix AA: Traffic Impact Assessment for further details on the traffic and access assessments done on Gore Highway.</p> <p>The Project team proceeded to develop an alternate solution that offers a simpler, safer and less impactful design to landowners, the community and road users. In May 2021 the Project team presented both options to the community:</p> <ul style="list-style-type: none"> Draft EIS reference design including road network updates Alternate solution that reduces extent of works on the Gore Highway A letterbox drop followed the information session and additional community feedback was captured. Feedback from the community indicated a preference for the alternate solution. <p>The operation and works to the Gore Highway is under the jurisdiction of the Department of Transport and Main Roads as the road authority. Modifications outside of the currently proposed Project scope, such as the speed limit, should be submitted to the respective road authority directly (Appendix AA: Traffic Impact Assessment).</p>	Appendix AA: Traffic Impact Assessment
115	115.0001	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> The submitter highlights that the Pampas Rural Fire Brigade shed, access for volunteers to this shed as well as access for a Rural Fire Brigade callout from the shed will be impacted by Inland Rail as the shed lies directly in the Inland Rail Project footprint. However, the EIS does not acknowledge the Pampas Rural Fire Brigade as an affected Emergency Service and fails to list the Pampas Rural Fire Brigade Shed as a sensitive receptor. The submitter highlights that the Pampas Rural Fire Brigade shed is omitted from the list of Emergency Services listed in the EIS and is also omitted from affected community groups. 	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Pampas region needs to revisit decisions around rail and bridge design in the village of Pampas, road access changes and the impact on residences, local businesses and local support groups, specifically the Pampas Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form, and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form, and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Project's proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>An information session was held for the Pampas community at Brookstead Hall on 13 May 2021 to consult the Pampas community on proposed changes to the road design. Attendees to this session included a regional QFES representative who provided verbal feedback on the proposed design. A member of the local QFES also provided verbal feedback via phone after the information session.</p> <p>Consultation with the community and relevant government agencies (including emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>The Project team continues to meet with members of the local community, impacted interest groups, and representatives of the Department of Transport and Main Roads (TMR) and Toowoomba Regional Council (TRC) to determine the design scope and requirements for road networks.</p> <p>The proposed rail alignment for the Border to Gowrie Section of Inland Rail follows the existing Queensland Rail Millmerran branch line through Yandilla and Pampas. In developing the Project's reference design, consideration is given to technical viability, safety, operation restrictions, constructability, the environment, community, and property impacts, and consulted widely with landowners and key stakeholders.</p> <p>The Project's reference design and level crossing in Pampas was developed after consultation with the local community. In July 2019 the Pampas community asked to keep the level crossing as close to its current location as possible to minimise impacts to Pampas Hall, residents and enable continued movement of farming equipment with minimised highway interference. The Project team worked to accommodate these aspects in consultation with road authorities, however further development of the design found that the Gore Highway required additional turning lanes which resulted in potential road safety and access issues, such as the Caltex service station and properties on the northern side of Gore Highway.</p> <p>ARTC develop an alternate solution that offers a simpler, safer and less impactful design to landowners, the community and road users. In May 2021 ARTC presented both options to the community:</p> <ul style="list-style-type: none"> Draft EIS reference design including road network updates Alternate solution that reduces extent of works on the Gore Highway. <p>Within the traffic, transport and access study area, seven diversion locations have been identified which include Ware Street Brookstead and Fysh Road Pampas. For the intersections previously summarised in Section 20.7.7 in Chapter 20: Traffic, Transport and Access that have been analysed, all intersections are found to be performing at a satisfactory level post-diversion. The impact on public transport and active modes are also expected to be negligible, if any.</p> <p>A letterbox drop followed the information session and additional community feedback was captured. Feedback from the community indicated a preference for the alternate solution. The revised draft EIS Appendix E: Consultation Report has been updated to include this engagement.</p> <p>The Construction Traffic Management Plan will identify and include secondary/alternative construction routes which can be used by construction traffic in the event that a primary construction route is blocked by an accident or emergency situation. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>ARTC attends the District Disaster Management Group and presents Project updates regularly to facilitate dialogue about the impact of the alignment on emergency services. In 2023, ARTC proposed a quarterly Emergency Management Working Group, comprising senior members from QAS, QFES and QPS. ARTC will continue to liaise with these stakeholders and schedule regular engagement commencing in 2024. The framework for emergency management across the Project alignment, including operational communication protocols within each agency will also be established as part of this process. (Chapter 6: Stakeholder Engagement, Section 6.6.6).</p> <p>The Communication and Stakeholder Engagement Management Plan (CSEMP) will be developed with consideration to the ongoing community engagement requirements outlined in the SIMP (Appendix X: Social Impact Assessment). The CSEMP includes measures to address engagement with government agencies to develop protocols, confirm the detail of mitigation measures for impacts on social infrastructure and develop joint response arrangements with Queensland Fire Emergency Services (QFES), QPS and QAS (Chapter 6: Stakeholder Engagement, Section 6.7.2).</p>	Chapter 6: Stakeholder Engagement Section 6.6.6 Section 6.7.2 Chapter 20: Traffic, Transport and Access Section 20.7.7 Appendix E: Consultation Report Section 5.5

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
115	115.0002	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> The submitter states that there has been no approach from ARTC to the Pampas Rural Fire Brigade to discuss the impact of rail construction and operation and how this will impact on the local Emergency Services. The submitter highlights that the release of the EIS provides the first concrete evidence from ARTC about the location of the Pampas Fire Brigade shed and facilities in the rail corridor as well as the expected impact on the facilities due to noise and vibration. The submitter expresses that the experience of the Pampas region with ARTC is that they have not listened to community concerns or undertaken the stakeholder Engagement process claimed in Appendix C, EIS; specifically that the Pampas Rural Fire Brigade has not been informed or consulted with in any way. The submitter expresses that the behaviour of ARTC, ignoring adversely affected community groups, especially volunteer Emergency Services, further erodes trust and credibility. 	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Pampas region needs to revisit decisions around rail and bridge design in the village of Pampas, road access changes and the impact on residences, local businesses and local support groups, specifically the Pampas Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form, and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form, and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Project's proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>An information session was held for the Pampas community at Brookstead Hall on 13 May 2021 to consult the Pampas community on proposed changes to the road design. Attendees to this session included a regional QFES representative who provided verbal feedback on the proposed design. A member of the local QFES also provided verbal feedback via phone after the information session.</p> <p>Consultation with the community and relevant government agencies (including emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>The Project team continues to meet with members of the local community, impacted interest groups, and representatives of the Department of Transport and Main Roads (TMR) and Toowoomba Regional Council (TRC) to determine the design scope and requirements for road networks.</p> <p>The proposed rail alignment for the Border to Gowrie Section of Inland Rail follows the existing Queensland Rail Millmerran branch line through Yandilla and Pampas. In developing the Project's reference design, consideration is given to technical viability, safety, operation restrictions, constructability, the environment, community, and property impacts, and consulted widely with landowners and key stakeholders.</p> <p>The Project's reference design and level crossing in Pampas was developed after consultation with the local community. In July 2019 the Pampas community asked to keep the level crossing as close to its current location as possible to minimise impacts to Pampas Hall, residents and enable continued movement of farming equipment with minimised highway interference. The Project team worked to accommodate these aspects in consultation with road authorities, however further development of the draft EIS reference design found that the Gore Highway required additional turning lanes which resulted in potential road safety and access issues, such as the Caltex service station and properties on the northern side of Gore Highway.</p> <p>ARTC develop an alternate solution that offers a simpler, safer and less impactful design to landowners, the community and road users. In May 2021 ARTC presented both options to the community;</p> <ul style="list-style-type: none"> Draft EIS reference design including road network updates Alternate solution that reduces extent of works on the Gore Highway. <p>Within the traffic, transport and access study area, seven diversion locations have been identified which include Ware Street Brookstead and Fysh Road Pampas. For the intersections previously summarised in Section 20.7.7 in Chapter 20: Traffic, Transport and Access that have been analysed, all intersections are found to be performing at a satisfactory level post-diversion. The impact on public transport and active modes are also expected to be negligible, if any.</p> <p>A letterbox drop followed the information session and additional community feedback was captured. Feedback from the community indicated a preference for the alternate solution. The revised draft EIS Appendix E: Consultation Report has been updated to include this engagement.</p> <p>ARTC attends the District Disaster Management Group and presents Project updates regularly to facilitate dialogue about the impact of the alignment on emergency services. In 2023, ARTC proposed a quarterly Emergency Management Working Group, comprising senior members from QAS, QFES and QPS. ARTC will continue to liaise with these stakeholders and schedule regular engagement commencing in 2024. The framework for emergency management across the Project alignment, including operational communication protocols within each agency will also be established as part of this process. (Chapter 6: Stakeholder Engagement, Section 6.6.6).</p> <p>The Communication and Stakeholder Engagement Management Plan (CSEMP) will be developed with consideration to the ongoing community engagement requirements outlined in the SIMP (Appendix X: Social Impact Assessment). The CSEMP includes measures to address engagement with government agencies to develop protocols, confirm the detail of mitigation measures for impacts on social infrastructure and develop joint response arrangements with Queensland Fire Emergency Services (QFES), QPS and QAS (Chapter 6: Stakeholder Engagement, Section 6.7.2).</p>	<p>Chapter 6: Stakeholder Engagement Section 6.6.6 Section 6.7.2 Chapter 20: Traffic, Transport and Access Section 20.7.7 Appendix E: Consultation Report Section 5.5</p>
115	115.0003	Private - Brookstead	Social Impact Assessment		<p>The level crossing design has not been completed, hence the EIS document does not provide the necessary detail for Pampas Rural Fire Brigade to comment on social impacts and safety concerns in the local area.</p>	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Pampas region needs to revisit decisions around rail and bridge design in the village of Pampas, road access changes and the impact on residences, local businesses and local support groups, specifically the Pampas Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form, and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form, and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>The Pampas Fire Station is located approximately 70 metres from the rail line.</p> <p>The Project's reference design and level crossing in Pampas were developed in consultation with the local community. In July 2019 the Pampas community asked to keep the level crossing as close to its current location as possible to minimise impacts to Pampas Memorial Hall and residents and enable continued movement of farming equipment. The Project team worked in consultation with road authorities to accommodate these aspects, but it was found that the Gore Highway would require additional turning lanes, with potential road safety issues and impact on access to the Caltex service station and properties on the northern side of Gore Highway. An alternate solution was then developed with both options presented to the community through a letterbox drop and information session in May and August 2021. Feedback from the community indicated a preference for the alternate solution. This engagement is documented in Appendix E: Consultation Report, Section 5.</p> <p>The amenity of homes and the Pampas Memorial Hall may be affected by noise from construction whilst works occur in this area. Exceedance of operational rail noise criteria were predicted for homes in Pampas, requiring at-property noise mitigation treatments. Operational noise impacts relative to the Pampas Rural Fire Brigade shed are being investigated. Appendix X: Social Impact Assessment will be amended to note the location of the Pampas Rural Fire Brigade shed and to identify any impacts expected e.g. noise or changes to road access. The Pampas Pampas Rural Fire Brigade has also been identified a stakeholder for ongoing consultation.</p> <p>Appendix E: Consultation Report has been updated to include all Emergency Services and local community groups as stakeholders, and additional engagement has been undertaken with Queensland Fire and Emergency Services (QFES), Queensland Police Service (QPS), and local police stations along the alignment. One-on-one engagement was conducted with the Regional Director of Policing and an ARTC representative attends the District Disaster Management Group and presents Project updates regularly to increase dialogue about the impact of the alignment on emergency services. Additionally, in early 2023 a quarterly Emergency Management Working Group was established with Queensland Ambulance Service (QAS), QFES and QPS to establish the framework for emergency management across the Project alignment. Details are outlined in Appendix E: Consultation Report, Section 5.</p>	<p>Appendix E: Consultation Report Section 5</p>
116	116.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	<p>The SIA Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
116	116.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	<p>No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.</p>	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6</p>
116	116.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	<p>ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.</p>	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signaling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 16 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration – Railway Operations Section 4 Section 17 Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
116	116.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
117	117.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
117	117.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is not yet available. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during the Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
117	117.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signaling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration – Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
117	117.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yearloun to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
118	118.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
118	118.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
118	118.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration – Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
118	118.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. 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Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. 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The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
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119	119.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration – Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>

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The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. 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Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. 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ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
120	120.0001	Private - Pampas Private	Stakeholder engagement		Proponent has not engaged with the Pampas Progress Association and listed their concerns	Withdraw the EIS and start consultation process again	ARTC has had many conversations with the committee of the Pampas Progress Association regarding the potential impacts the Project may have on the hall. In May 2021, ARTC ran community engagement on the proposed road network changes for Pampas. During this consultation a number of hall committee members were engaged and their concerns captured. The revised draft EIS notes the Pampas Hall as a sensitive receptor. Additional engagement is planned in mid 2023 when updated noise modelling will give a clearer understanding of potential noise impacts to discuss how mitigation will be managed. ARTC are committed to engaging with the Pampas Hall committee as the Project progresses through detailed design and impacts are more clearly understood. Consultation for the Project is outlined in Appendix E Consultation Report.	Appendix E: Consultation Report
120	120.0002	Private - Pampas Private	Traffic and Transport		Revisit decisions around rail and bridge design in the village of Pampas	Withdraw EIS, ensure all items under the ToR are included in the EIS	<p>Regarding level crossings, ARTC recognises the complex decision-making process surrounding public road rail interfaces. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The Harris Road level crossing in Pampas for the draft EIS was developed in consultation with the local community. In July 2019 the Pampas community asked to keep the level crossing as close to its current location as possible to minimise impacts to Pampas Hall, residents and enable continued movement of farming equipment with minimised highway interference. The Project team worked to accommodate these aspects in consultation with road authorities, however further development of the draft EIS reference design found that the Gore Highway required additional turning lanes which resulted in potential road safety and access issues, such as the Caltex service station and properties on the northern side of Gore Highway.</p> <p>The Project team proceeded to develop an alternate solution that offers a simpler, safer and less impactful design to landowners, the community and road users. In May 2021 the Project team presented both options to the community:</p> <ul style="list-style-type: none"> Draft EIS reference design including road network updates Alternate solution that reduces extent of works on the Gore Highway A letterbox drop followed the information session and additional community feedback was captured. Feedback from the community indicated a preference for the alternate solution. <p>Reference design outcomes included changes to Fysh Road, Harris Road, and the Gore Highway intersection, which involved road realignments and more optimal location of the proposed level crossing. For more detail, refer to Section 5.9 of Appendix AA: Traffic Impact Assessment.</p>	Appendix AA: Traffic Impact Assessment Appendix BT
121	121.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
121	121.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
121	121.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration – Railway Operations Section 4 Section 17 Section 17.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
121	121.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. 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Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
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In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. 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Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
122	122.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Pampas will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Pampas community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Pampas has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration, and results discussed in Section 16.6 of Chapter 16: Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. Concept noise barrier mitigation at Pampas are more modelled and discussed in Section 17.4. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the detailed design and construction stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic Section 7 W: Noise and Vibration - Railway Operations Section 4 Section 11 Section 17 Section 17.4
123	123.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Pampas will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Pampas community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Pampas has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration, and results discussed in Section 16.6 of Chapter 16: Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. Concept noise barrier mitigation at Pampas are more modelled and discussed in Section 17.4. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic Section 7 W: Noise and Vibration - Railway Operations Section 4 Section 11 Section 17 Section 17.4
123	123.0004	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be redone.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
123	123.0005	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the community of Pampas cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
123	123.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2. <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 2.1 Section 4 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
124	124.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be redone.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
124	124.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the community of Pampas cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
124	124.0003	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. 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Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. 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At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. 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Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
124	124.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Pampas will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Pampas community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Pampas has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration, and results discussed in Section 16.6 of Chapter 16: Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. Concept noise barrier mitigation at Pampas are more modelled and discussed in Section 17.4. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic</p> <p>Section 7</p> <p>W: Noise and Vibration - Railway Operations Section 4</p> <p>Section 11</p> <p>Section 17</p> <p>Section 17.4</p>
125	125.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Pampas will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Pampas community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Pampas has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration, and results discussed in Section 16.6 of Chapter 16: Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. Concept noise barrier mitigation at Pampas are more modelled and discussed in Section 17.4. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic</p> <p>Section 7</p> <p>W: Noise and Vibration - Railway Operations Section 4</p> <p>Section 11</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
125	125.0004	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yearloun to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
125	125.0005	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be redone.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
125	125.0006	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the community of Pampas cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
126	126.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
126	126.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
126	126.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2C cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The draft revised EIS discusses a range of reasonable and practicable mitigation measures to reduce noise where predictions exceed the relevant noise level criteria.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic</p> <p>Section 7</p> <p>W: Noise and Vibration - Railway Operations</p> <p>Section 4</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
126	126.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. 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Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. 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127	127.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
127	127.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
127	127.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The draft revised EIS discusses a range of reasonable and practicable mitigation measures to reduce noise where predictions exceed the relevant noise level criteria.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic</p> <p>Section 7</p> <p>W: Noise and Vibration - Railway Operations</p> <p>Section 4</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
127	127.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. 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Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
128	128.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Pampas will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Pampas community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Pampas has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration, and results discussed in Section 16.6 of Chapter 16: Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic, Section 7. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers in Pampas. The noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. Concept noise barrier mitigation at Pampas are more modelled and discussed in Section 17.4. There will be engineering, further acoustic assessment (including noise modelling) and community engagement undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic Section 6.2 W: Noise and Vibration - Railway Operations Section 4 Section 10.6 Section 17 Section 17.4
129	129.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
129	129.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing of development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
129	129.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
129	129.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 2.1 Section 4 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
130	130.0001	Private	Cultural Heritage	Non-Indigenous cultural heritage	A grave site with a headstone is present on Mr Neil Owens property where the railway will be going through.	Seeking another solution to avoid damaging the grave and headstone.	Section 19.4 of Chapter 19: Cultural Heritage has been updated to note that a site visit by a heritage specialist and assessment of the grave site was undertaken and Section 19.6 of Chapter 19: Cultural Heritage was updated with recommend mitigations. These include further archaeological survey and the relocation of the Tibbs grave and a reported adjacent unmarked grave to Pittsworth cemetery. Inland Rail has met with the submitter regarding the grave and will continue to work with History Pittsworth and the landowner throughout this process.	Chapter 19: Cultural Heritage Section 19.4 Section 19.6
131	131.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not provide a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent local government areas to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
131	131.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
131	131.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As well all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is explained in Appendix W: Noise and Vibration – Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration – Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (see Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (see Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts (e.g. property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>
131	131.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <ul style="list-style-type: none"> The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
132	132.0001	Private	Project alignment	Directly impacted landowner	Millmerran Power Station Coal reserves impacted by route of Inland Rail B2G.	Commercial discussion regarding compensation for impacted resources within MDL 299 and MDL 300. Alternate route selection.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps).</p> <p>The preferred location for the proposed rail corridor (as presented in Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). <p>If extinguishment of part of a mining lease or other resource tenement occurs, this gives the holder a right to claim compensation. Compensation will be assessed in accordance with the Acquisition of Land Act 1967 (Qld) and is limited to the actual costs resulting from the extinguishment or injurious affect to a claimants interests. This would include expenses incurred such as studies, preparatory work and infrastructure.</p> <p>ARTC recognises the Millmerran Operation Company as a key stakeholder and will continue to work collaboratively into the Detailed Design stage.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p>
132	132.0002	Private	Project alignment	Directly impacted landowner	Four (4) residential properties impacted directly during construction and operation of B2G Inland Rail.	Commercial discussion regarding compensation for impacted residents within 500 m of rail line.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps).</p> <p>The preferred location for the proposed rail corridor (as presented in Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). <p>If extinguishment of part of a mining lease or other resource tenement occurs, this gives the holder a right to claim compensation. Compensation will be assessed in accordance with the Acquisition of Land Act 1967 (Qld) and is limited to the actual costs resulting from the extinguishment or injurious affect to a claimants interests. This would include expenses incurred such as studies, preparatory work and infrastructure.</p> <p>ARTC recognises the Millmerran Operation Company as a key stakeholder and will continue to work collaboratively into the Detailed Design stage.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.10</p> <p>Chapter 6: Stakeholder Engagement</p> <p>Appendix E: Consultation Report</p>
132	132.0003	Private	Social Impact Assessment	Local business and industry procurement	Increase use of Recycled fill products.	Investigation for the B2G rail project in utilising recycled products using End of Waste Code allowances for Coal Combustible Products should be considered for this project. Millmerran Power Station can provide access to fly ash and bottom ash that can be used within the conditions of ENEW07359717.	<p>Section 22.5.2 describes that the fill deficit for the Project will be met through the importation of appropriate material type from operational licenced quarries or from the six borrow pits locations established for the Project. Where practicable, unsuitable material will be reused within the Project footprint through treatment, amelioration or drying or for offsite reuse subject to compliance with relevant legislation and policy framework, demonstration of the material as clean and written agreement with the receiver. Material that cannot be treated for appropriate reuse may be disposed offsite; however, offsite disposal to landfill will only occur as a last resort, if the material is considered unsuitable for other uses (e.g. due to geotechnical or contamination reasons). (refer Section 2.2 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan and Section 22.3.3 of Chapter 22: Waste and Resource Management).</p>	<p>Chapter 22: Waste and Resource Management</p> <p>Section 22.5.2</p> <p>Section 22.3.3</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p>
132	132.0004	Private	Project alignment	Directly impacted landowner	Permanent footprint within MDL 299 and MDL 300 discussed but potential additional impacts beyond permanent footprint not discussed.	Commercial discussion regarding compensation for impacted resources within MDL 299 and MDL 300.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps).</p> <p>The preferred location for the proposed rail corridor (as presented in Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs The outcomes of the multi-criteria analysis (MCA). <p>If extinguishment of part of a mining lease or other resource tenement occurs, this gives the holder a right to claim compensation. Compensation will be assessed in accordance with the Acquisition of Land Act 1967 (Qld) and is limited to the actual costs resulting from the extinguishment or injurious affect to a claimants interests. This would include expenses incurred such as studies, preparatory work and infrastructure.</p> <p>ARTC recognises the Millmerran Operation Company as a key stakeholder and will continue to work collaboratively into the Detailed Design stage.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
132	132.0005	Private	Land Use and Tenure	Directly impacted landowner	Recycled Water Supply to Millmerran Power Station impacted. Identified possible disruption of essential supply to Power Station.	Interface agreement to be entered into regarding conditions required to satisfy asset owner.	<p>ARTC utilities team have consulted with the Millmerran Operating Company to understand any infrastructure and/or operational impacts that require mitigation.</p> <p>During consultation, ARTC has communicated the proposed relocation/protection treatments for their recycled water main and integrated feedback received into the Scope of Works and Technical Criteria (SWTC) document. This document will form part of the tender information provided to the Project's contractors and includes a reference to the Millmerran Operating Company's interface agreement and other conditions.</p> <p>The Project recognises the Millmerran Operation Company as a key stakeholder and will continue to work collaboratively into the Detailed Design stage. Further details on consultation are provided in Appendix E: Consultation Report.</p> <p>More broadly, outcomes of consultation with individual utility providers have been integrated into the reference design. Specific outcomes included methodologies for treating impacted utilities, providing indications of construction timeframes and the current status of the rail design. The methodology for the mitigating the impact of the interface between utilities and the alignment include modification to the utilities, upgrade of the utilities, and diversion or realignment of the rail. Specific methodologies for individual utilities will be finalised through further consultation with providers and integrated into the design of the alignment in detailed design.</p> <p>Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.3 (Table 8-51) of the revised draft EIS for further detail.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.3</p> <p>Table 8-51</p> <p>Appendix E: Consultation Report</p>
132	132.0006	Private	Land Use and Tenure	Directly impacted landowner	Dissection of agricultural and Mineral Development resources will occur if the current route is developed. This limits future use and planning.	Further detail and information regarding route selection and justification required in relation to impacts to Millmerran Power Project assets.	<p>ARTC have consulted with the Millmerran Operating Company and previously amended the alignment in response to consultation.</p> <p>The Project recognises the Millmerran Operation Company as a key stakeholder and will continue to work collaboratively into the Detailed Design stage. Further details on consultation are provided in Appendix E: Consultation Report.</p> <p>Management measures in relation to Millmerran Power Station have been identified in Chapter 8: Land Use and Tenure and Chapter 23: Cumulative Impacts, Section 23.3.1, Table 23-8. These include the following:</p> <ul style="list-style-type: none"> Refinement of the reference design during Detailed Design stage to minimise the Project footprint to the extent required for the construction works and safe operation of the Commodore Mine and Millmerran Power Station Rehabilitation of land that is temporarily disturbed in support of construction activities construction (e.g. for access tracks, laydown areas etc.) at the end of its use for construction, unless otherwise agreed with the relevant landowner Development and implementation of a Rehabilitation and Landscaping Management Plan, as a component of the Construction Environmental Management Plan for the Project that is compatible with plans for the adjoining Commodore Mine and Millmerran Power Station and addresses cumulative impacts to agricultural land. Disruption to agricultural operations will be managed through the development of individual property treatments in consultation with landowners/occupants, with respect to the management of cumulative construction activities on or immediately adjacent to private properties. These will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required. Measures, where agreed, will be documented in individual property agreements (or similar). It is noted that a large number of properties surrounding the Commodore Mine and Millmerran Power Station are owned and leased for private occupancy by entities that also have an ownership interest in the mine and power station. 	<p>Chapter 8: Land Use and Tenure</p> <p>Chapter 23: Cumulative Impacts</p> <p>Section 23.3.1</p> <p>Table 23-8</p> <p>Appendix E: Consultation Report</p>
132	132.0007	Private	Surface Water	Directly impacted landowner	Land Resources and Overland flow within the vicinity of currently approved mine infrastructure and Back Creek Diversion. Has modelling taken these risks into consideration?	Detailed modelling to be provided regarding mining infrastructure and works in the areas.	<p>As detailed in Section 8.3.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Back Creek hydraulic modelling is based on 2015 1 m LiDAR (sourced by ARTC) and 2012 Brookstead data flown as part of the Inland Town Stage 4 Project. The inclusion of the Back Creek Diversion Project has not been considered as part of the hydraulic modelling. As part of the Detailed Design of Inland Rail, projects that are likely to affect the local hydrology and floodplain behaviour, and that is likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority. ARTC will consult with Millmerran Operating Company to discuss projects associated with the mine expansion that will influence local hydrology and floodplain behaviour in Back Creek during the Detailed Design stage of the Project.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The impacts of nominated flood events during operation of the Inland Rail Project on Back Creek have been assessed and quantified as part of the Hydrology and Flood Assessment, and reported in Section 8.5 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 14 of the revised draft EIS with a summary of impacts provided in Section 14.8 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 8.3.2</p> <p>Section 8.5</p>
132	132.0008	Private	Economics	Directly impacted landowner	The B2G EIS identifies the long-term permanent footprint of the rail corridor as the limiting factor and undertaken a calculation of impact to land based on their linear project.	Detailed analysis should be considered by the project to identify actual costs/limitations with a linear impediment through future mining resources. To this point, Millmerran Power Partners has had limited detail provided in the form of commercial discussions or alternate routes avoiding mineral development areas.	<p>ARTC conducted a thorough investigation and assessment of various rail alignment options within the 2 km study area during the design development of the revised draft Environmental Impact Statement (EIS). Through active consultation with relevant stakeholders, ARTC has chosen alignment options that minimize the impact on known infrastructure and resources, where technically feasible and without compromising the service offering (detailed throughout Chapter 8: Land Use and Tenure).</p> <p>To reduce the impact on identified resources that were shared with ARTC through consultation with Millmerran Power, a regional business and local employer, the rail alignment next to Millmerran Power underwent an options investigation in 2019. Consequently, the alignment was moved outside the study area, without causing any additional impact on other landowners. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>ARTC has prepared a comprehensive summary of the design changes that have been made since the draft EIS was released for publication. Refer to Section 5.3.3 Chapter 5: Project Description and Appendix B3: Changes to Reference Design since Draft EIS.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.6</p> <p>Section 6.6</p> <p>Section 6.7</p> <p>Chapter 8: Land Use and Tenure</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p>
133	133.0001	Private	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>ARTC determined that the Turallin site was a not a location for an accommodation village for the Project workforce. ARTC advised BNTAC and Toowoomba Regional Council in March 2023 and ARTC also commenced engagement with key stakeholders and the community on potential preferences for a site in the Millmerran area in mid-2023. Engagement with key stakeholders, local businesses and the community will be ongoing and further analysis will be undertaken by on a preferred site location.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.12</p>
133	133.0002	Private	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Ellerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Table E-56</p> <p>Appendix X: Social Impact Management Plan</p> <p>Section 8.4</p>
133	133.0003	Private	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
133	133.0005	Private	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas), and the Contractor is currently undertaking due diligence to identify a third site in the Millmerran area.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. The Contractor is currently undertaking due diligence to identify a site for the establishment of non-resident workforce accommodation facilities in the Millmerran area. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social Section 17.5 Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11</p>
133	133.0006	Private	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas), and the Contractor is currently undertaking due diligence to identify a third site in the Millmerran area.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. The Contractor is currently undertaking due diligence to identify a site for the establishment of non-resident workforce accommodation facilities in the Millmerran area. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social Section 17.5 Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11</p>
133	133.0007	Private	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6</p>
133	133.0008	Private	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
133	133.0009	Private	Flora and Fauna		Chance of Flora & Fauna displacement	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan</p>
134	134.0001	Private	Social Impact Assessment	Directly impacted landowner	Concerned about maintaining access to their property with proposed new infrastructure, changes to Morris Road and functionality of new infrastructure in heavy rain.	Address property access concerns.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 17: Social Section 17.5 Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
134	134.0002	Private	Surface Water	Directly impacted landowner	Concerned about drain issues along railway that borders East Paulsen's Road and drain issues on western end East Paulsen's Road where water drainage from road lies in low Section blocking access on the gravel road impacting access to property.	Address concerns about drainage impacting access to property.	<p>The reference design for the Gowrie to Helidon Project is currently under review as part of the Gowrie to Helidon revised draft EIS. Current flood modelling documented within the revised draft EIS only assesses impacts associated with the Border to Gowrie portion of the Project. Modelling results are mapped within the Gowrie floodplain for the entire hydraulic model domain but these will be further reviewed once the Gowrie to Helidon reference design is confirmed. Impacts associated with the Gowrie to Helidon Project will be reported in the Gowrie to Helidon revised draft EIS.</p> <p>Mitigation measures that have been factored into the Border to Gowrie reference design, or otherwise implemented during the reference design stage for the Project include:</p> <ul style="list-style-type: none"> The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes Refinement of the horizontal alignment considered placement of the Project footprint such that it minimises flooding impacts to the greatest extent possible. The Project footprint has been established to provide the minimum-sized area required to safely and efficiently construct, maintain and operate the Project <p>Details regarding flooding and geomorphology measures for the Border to Gowrie Project are outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>During detailed design, the Project disturbance footprint will be further refined to that which is required to safely construct, operate and maintain the Project, which will include minimising property acquisition requirements, property severance and disruption to land use and transport networks.</p>	N/A
134	134.0004	Private	Social Impact Assessment	Property Devaluation	Property values will be affected by new railway, increased noise and impacts on visual amenity.	Confirm how ARTC will work with property owner to mitigate the risk to their property value.	<p>ARTC acknowledges that property owners are anxious regarding the potential for property values to decrease as a result of the Project's impacts, as noted in Chapter 17: Social. The Project has committed to a wide range of environmental mitigation and management measures to minimise noise impacts, impacts on scenic amenity and changes to connectivity which could otherwise affect property values.</p> <p>The revised draft EIS is unable to provide advice on individual property values. Appendix X: Social Impact Assessment, Section 7.1 notes that property values may be affected by a range of factors related or unrelated to the project. Any project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers views on impacts such as noise, versus proximity to e.g. employment centres. All relevant research the EIS team could identify is presented within Appendix X: Social Impact Assessment.</p> <p>Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p>	Chapter 17: Social Appendix X: Social Impact Assessment Section 7.1
134	134.0005	Private	Flooding	Modelling	Concerned about draft EIS comments relating to flood modelling and bridges and how the new infrastructure will affect their property during heavy rainfall and consequent flooding. Current drainage along the railway line is extremely poor and backs up and then pools over land alongside the property and in heavy rain on the property causing erosion as well as flow of excess water.	Advise how property impacts from changes to flooding will be mitigated.	<p>ARTC shared the results of the noise modelling and potential mitigation strategies with those sensitive receivers predicted to exceed noise guidelines during the operation of Inland Rail.</p> <p>ARTC notes the structures on this property are more than 750 metres from the proposed level crossing and have not been identified as exceeding said guidelines.</p> <p>ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project.</p>	N/A
135	135.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
135	135.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
135	135.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4

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135	135.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Section 17.5 of Chapter 17: Social and Section 7.3 of Appendix X: Social Impact Assessment, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Assessment Section 7.3
135	135.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56
135	135.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design. Floor risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6
135	135.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
135	135.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
136	136.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
136	136.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
136	136.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
136	136.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
136	136.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56
136	136.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56
136	136.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design. Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6
136	136.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
136	136.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
137	137.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
137	137.0002	Private - Turallin Workers	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Eilersie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
137	137.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>
137	137.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
137	137.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56</p>
137	137.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6</p>
137	137.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
137	137.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan</p>
138	138.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
138	138.0002	Private - Turallin Workers	Traffic and Transport		<p>a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre.</p> <p>b. Increase in traffic on narrow roads that are already heavily traversed.</p> <p>c. Impact on Travel time as it is further from the alignment of the rail project.</p> <p>d. Turallin and Elerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length.</p> <p>e. Could impact on Millmerran town parking availability.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
138	138.0003	Private - Turallin Workers	Air Quality		<p>Location lacks services. Should generators be required to supply power this would create greenhouse emissions.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>
138	138.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	<p>a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56</p>
138	138.0006	Private - Turallin Workers	Social Impact Assessment		<p>The camp site could have a possible negative Life Style impact on the small rural historic community.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11 Table E-56</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
138	138.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6</p>
138	138.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
138	138.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan</p>
139	139.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
139	139.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Ellerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
139	139.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
139	139.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Table E-56</p>
139	139.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Table E-56</p>
139	139.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Eilersie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20.5.1</p> <p>Section 20.6</p>
139	139.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
139	139.0009	Private - Turalin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Two facility locations have been presented in the revised draft EIS, with a third facility to be determined at a location determined in detailed design. Separate approvals will be sought for this facility, if and when needed. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures. Additional mitigation and management measures are presented in Chapter 24: Draft Outline Environmental Management Plan. The location of the two non-resident workforce accommodation facilities presented in the revised draft EIS have been historically cleared for agricultural production and are of sufficient size to enable impacts to facility infrastructure to be located to avoid or minimise impacts to listed flora and faunas species. Pre-clearance surveys will be carried out prior to clearing commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan
140	140.0001	State Agency	Surface Water		Agriculture - Surface Water Quality - Potential Project impacts include increased debris, changes to water quality and hydrology, (due to increased water turbidity and sedimentation); increased salinity, (which may affect the usability of downstream waters for purposes such as irrigation, farm supply, stock use and recreation, etc.), increased contaminants, erosion, and sedimentation, with exacerbation of these impacts on surface water quality likely if rehabilitation is inadequate. In addition, there are potential impacts to water morphology and the availability of surface water for existing users. Also, structural failure, (of a bridge or culverts within waterways), has the capacity to alter flow regimes and increase degradation of surface water quality due to potential secondary salinity issues. Potential cumulative impacts of the Project on surface water include riparian vegetation loss from vegetation clearing; reduction in the connectivity of waterways, and an increase in erosion and sedimentation in waterways.	Nil. Comment is a summary of issues raised in the submission.	Many Project design elements and commitments have been prepared to mitigate impacts to water quality. The revised reference design has been developed to minimise impacts to watercourses, riparian vegetation and in-stream flora and habitats by adopting a crossing structure hierarchy where bridges are preferred to culverts. Watercourse crossing structures (including culverts and bridges) are designed to minimise the need for ongoing maintenance and inspection to maintain aquatic fauna passage (e.g. fish and turtles) and minimise the risk of blockages in reference to Accepted development requirements for operational work that is constructing or raising waterway barrier works (1 October 2018) (DAF, 2018). Bridges and waterway crossings are designed to minimise impacts to bed, banks and environmental flows, in accordance with relevant regulatory requirements (as per requirements of DAF and the Fisheries Act) The revised reference design has been developed to avoid the need to permanently divert watercourses, as defined and mapped under the Water Act 2000. Two unmapped watercourses are expected to require diversion (Chapter 13: Surface Water, Section 13.5.2 and Chapter 14: Flooding and Geomorphology, Section 14.8.2). Scour protection measures have been included around culvert entrances and exits, on disturbed stream banks and on land bound by a watercourse to avoid erosion. Scour protection or energy dissipation measures have been specifically designed and sized for each culvert location in accordance with Austroads Guide to Road Design Part 5B: Drainage – Open Channels, Culverts and Floodways (Austroads, 2013b) (AGRD) with consideration for flow velocity, soil type and vegetation cover (Chapter 13: Surface Water, Section 13.6.1). Longitudinal drains have been designed to include 3.5 m buffer strips within 100 m swales before the point of discharge into the local waterway system. A Soil Management Plan will be developed which includes the following procedures and protocols relevant to potential impacts on land resources (Chapter 13: Surface Water, Table 13-16): <ul style="list-style-type: none"> Soil/land conservation objectives for the Project Management of problem soils Specification of the type and location of erosion and sediment controls. The erosion and sediment control measures will be developed by a Certified Professional in Erosion and Sediment Control and be in accordance with the International Erosion Control Association Best Practice Erosion and Sediment Control (2008). Requirements for training, inspections, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction. The detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable). A Rehabilitation and Landscaping Management Plan will be developed for the Project, as a component of the CEMP (Chapter 13: Surface Water, Table 13-16). The Plan will include and clearly identify: <ul style="list-style-type: none"> Location-specific objectives for rehabilitation, reinstatement and/or stabilisation. Objectives and timeframes for rehabilitation and/or reinstatement/stabilisation works (including biodiversity, vegetation establishment and erosion and sediment control outcomes to be achieved) Details of the actions and responsibilities to progressively rehabilitate, regenerate, and/or revegetate areas, whilst minimising the duration of exposure in disturbed areas. 	Chapter 13: Surface Water Section 13.5.2 Section 13.6.1 Table 13-16 Chapter 14: Flooding and Geomorphology Section 14.8.2
140	140.0002	State Agency	Groundwater		Groundwater Resources - Potential Project impacts include - loss or damage to existing landowner bores or groundwater use from bores (quality/yield degradation); groundwater level reduction; alteration of aquifer parameters and/or flow patterns; subsidence/settlement of compressible substrates; ARD; groundwater level mounding; and alteration to groundwater recharge/discharge mechanisms. The Project could also change groundwater levels and flow paths, reduce groundwater levels due to seepage into cuttings; and increase contamination causing a reduction of groundwater quality.	Nil. Comment is a summary of issues raised in the submission.	ARTC only anticipate localised minor impact to groundwater levels and quality in the vicinity of the deep cuts which are likely to intercept groundwater. Potential Project impacts are considered in Chapter 15: Groundwater, Section 15.6 and Appendix U: Groundwater Technical Report, Section 7. Proposed mitigation measures are provided in Chapter 15: Groundwater, Section 15.7 and Appendix U: Groundwater Technical Report, Section 8. ARTC have committed to undertaking site inspections prior to the construction of cuts, including visual examination of surface outcrops for sulfide minerals or evidence of sulfide mineralisation. The outcomes and information from these inspections will be utilised to inform the management of potential acid rock drainage (ARD) from cuttings prior to Project works. Cuts are expected to be primarily into the weathered to extremely weathered units portions of the Kumbarella Beds and Walloon Coal Measures (WCM); therefore, the risk for ARD could be naturally mitigated as sulphides minerals may have already been oxidised. Unweathered areas of the Kumbarella Beds and WCM have been avoided where possible. Potential for acid rock occurrence along the Project alignment is discussed in Chapter 9: Land Resources, Section 9.4.2 and is evidenced throughout Appendix G1: Geotechnical Investigation Results. Potential impacts relating to Acid rock are presented in Chapter 9: Land Resources, Section 9.5.7. Existing contamination in the form of cattle dips, waste facilities, etc encountered within the rail corridor will be removed and the sites remediated during construction such that these sources of contamination will not be present to contaminate groundwater where groundwater will be extracted. Contamination of groundwater may arise as a result of unintended spills and leaks of hydrocarbons (oils, fuels and lubricants) and other chemicals related to maintenance activities (accidental discharge) or rail incidents (e.g., loss of load). In the instance a spill, leak or any accidental discharge occurs during normal operation activities, the impact is likely to be superficial in nature and not expected to impact on shallow aquifers (Section 15.6.3 and Table 15-17 and 15-20 of Chapter 15: Groundwater. Maintenance crews and emergency response teams will be equipped with spill kits and environmental response equipment to intercept spills and leaks and prevent such incidents from impacting groundwater. Mobile plant, drill rigs, and equipment will be maintained in accordance with manufacturer requirements and inspected frequently to minimise breakdowns and decrease the risk of contamination. Contamination or altered water quality impacting vulnerable groundwater resources is considered a moderate risk during construction and low risk during operation (Table 15-23, Chapter 15: Groundwater).	Chapter 9: Land Resources Section 9.4.2 Section 9.5.7 Chapter 15: Groundwater Section 15.6 Section 15.6.3 Section 15.7 Table 15-17 Table 15-20 Table 15-23 Appendix U: Groundwater Technical Report Section 7 Section 8
140	140.0003	State Agency	Flooding		Hydrology and Flooding - Potential Project impacts include - changes to the existing flood regime such as, changes in peak water levels and associated duration of inundation; <ul style="list-style-type: none"> change flood flow distribution across floodplain areas; changes in velocity (leading to localised scour and erosion); and potential impacts on external properties, including increased depth of water, (noting the Project alignment crosses several major waterways (including the Macintyre and Condamine Rivers). 	Nil. Comment is a summary of issues raised in the submission.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIO) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office, noting these will be subject to further assessment at Detailed Design to remove/reduce the exceedances where possible. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment. Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter (Section 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Flood mapping has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the Digital Platform for each of the Flood Impact Objectives including: <ul style="list-style-type: none"> Change in peak water levels Change in peak velocity Change in time of inundation Change in hazard Change in velocity (with FIO cut-off's applied) Change in hazard (with FIO cut-off's applied) Change in time of inundation (with FIO cut-off's applied) The Digital Platform includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances. The PDF mapping in Appendix T2: Hydrology and Flooding Technical Report Volume 2 includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances aligned with the mapping requirements, for the 1% and 20% AEP events. The PDF mapping includes the sensitivity runs and calibration events.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
140	140.0004	State Agency	Flora and Fauna	Terrestrial fauna	The proponent states that they are consulting with GRC about realignment of the wild dog check fence. The Project interacts with the existing wild dog check fence from Ch 26.8 km to Ch 56.0 km and that the wild dog check fence will need to be reinstated on the left-hand side corridor boundary. Table 3.1 in Appendix M indicates the location of parts of the check fence which are proposed to be reinstated. There are nine parcels of land affected in this Section The proponent has not included the requirements of Section S91 (3) of the Biosecurity Act 2014 and will need to make clear the requirement for consultation with the Chief Executive of the Department of Agriculture and for consultation to be initiated by the Department of Agriculture and Fisheries with the building authority (Goondiwindi Regional Council) and the owner of the land affected by the amendment about the reinstatement of the check fence.	Under the Biosecurity Act 2014, local governments oversee and fund the maintenance of the wild dog check fences to a wild dog-proof standard. The wild dog check fences were built to protect animals in the adjacent cropping and grazing lands. Although the check fences do not physically link up to the wild dog barrier fence, they play an important role in wild dog control in southern Queensland. Most of the wild dog check fences have been well maintained and have been improved from their original condition. Section S91(3) of the Biosecurity Act 2014 requires that before amending the barrier fence map the Chief Executive of the Department of Agriculture and Fisheries must consult with the building authority (Goondiwindi Regional Council) and the owner of land affected by the amendment. There are other references to consulting with GRC about this issue and these should be cross-referenced where relevant.	Chapter 24: Draft Outline Environmental Management Plan includes the following requirement as a mitigation measure: "Where severance of the wild dog check fence or DDMRB rabbit fence is required, fence realignment and reconstruction will be undertaken as an early works package prior to the commencement of construction of rail infrastructure. Replacement fencing will be in accordance with detailed design in consultation and agreement with the relevant stakeholders, notably DES/QPWS, impacted landowners and lessees, DAF and GRC." Discussion of mitigation measures for barrier fencing is also detailed in Sections 8.5.1 and 8.6.3 in Chapter 8: Land Use and Tenure. DAF consultation is required before any amendments to the wild dog check fence are undertaken under Section S91(3) of the Biosecurity Act 2014". Appendix L: Terrestrial and Aquatic Ecology Technical Report incorporates the following text: "Further liaison with GRC and DDMRB will be undertaken during Detailed Design to confirm the fencing specifications for the dog check and rabbit exclusion fence, respectively". ARTC and GRC discussions about the realignment of the wild dog check fence are ongoing. At a suitable time during this process, ARTC will consult with DAF about any potential amendment of Section 91(3) of the Biosecurity Act 2014.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.3 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 7.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
140	140.0005	State Agency	Land Resources	Offsets	<p>Agriculture - Regardless of the inconsistency mentioned below, a significant amount of ALC Class A/B land, and land within an Important Agricultural Area will be permanently converted to a non-agricultural use by the project.</p> <p>The mitigation measures proposed for impacts to this finite resource appear to centre on avoidance and minimisation methods through the reference design phase and through amendments at the detail design stage.</p> <p>Given the amount of land to be irreversibly converted to a non-agricultural use and the regions reliance on agriculture economically, DAF is concerned that the mitigation measures proposed aren't adequate to protect the long-term viability and growth of the agriculture sector as per the State Planning Policy nor the Darling Downs Regional Plan, in which agriculture is the priority land use</p> <p>DAF raised this issue at the EIS adequacy stage stating that the proponent does not discuss mitigation strategies regarding the loss of ALC A and B land.</p>	<p>The EIS should consider investigating ways to ensure that there is no net loss of agricultural productivity in the region as a mitigation measure to offset the considerable loss of ALC Class A/B land within the EIS assessment area. This could be achieved by working with affected landowners to 'switch on' areas which are currently not utilised for production, but with new infrastructure or access (etc.) could be used for agricultural production.</p> <p>It is recommended that an equivalent amount of ALC A/B land be switched on to offset the loss of ALC A/B land rendered unusable for agriculture by the project. This land should be protected by covenant on title so that it remains permanently available for ongoing and uninterrupted use for agricultural only.</p>	<p>Development of the reference design for the Project has progressed in parallel with the impact assessment process. Refinement of the horizontal alignment considered placement of the Project footprint such that it traverses along, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA.</p> <p>Where permanent infrastructure is proposed, the Project will sterilise productive agricultural land. However noting that when quantifying agricultural land sterilised by the permanent footprint and identifying the significance of this impact, it was determined that the permanent footprint will traverse less than 0.5 per cent of the Class A and Class B land mapped within the Goondiwindi and Toowoomba local government areas (Section 8.5.4, Table 8-46 of Chapter 8: Land Use and Tenure).</p> <p>There are no legislative requirements for offsetting the loss of Class A and Class B land. As such, during future stages of the Project, the loss of Class A and Class B Agricultural Land will continue to be managed through (as per Section 8.5.4, Table 8-46 of Chapter 8: Land Use and Tenure and Section 23.3.1, Table 23-8 of Chapter 23: Cumulative Impacts):</p> <ul style="list-style-type: none"> Refinement of the Project during Detailed Design to minimise the footprint to the extent required for the construction works and safe operation of the Project Rehabilitation of land that is temporarily disturbed in support of construction activities (e.g. for access tracks, laydown areas, etc.) at the end of its use for construction, unless otherwise agreed with the relevant landowner Construction contract documentation for the Project, as well as adjoining Inland Rail Projects, will have consistent clauses regarding the monitoring and defect correction for revegetated and rehabilitated areas, particularly in areas designated as Class A and Class B agricultural land or within an IAA. <p>This wording has been reviewed and reworded in the revised draft EIS to ensure it addresses the proposed solution.</p> <p>With regard to avoiding, minimising or mitigating any impact on agricultural values when meeting environmental offset requirements required for the Project, the Environmental Offset Delivery Strategy (Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie) typically targets land that holds inherent biodiversity value which reflects those MNES and MSSES likely to be impacted by each Qld Project. On this basis, offset site selection is undertaken on a hierarchical basis which preferentially targets land that contains ecological values generally associated with intact remnant and regrowth ecological communities (habitat) and in doing so, avoids or minimises, to the greatest extent possible, impacts to highly modified agricultural land.</p> <p>The Qld Offset Program will commit to consulting with DAF during the development of the final offset strategy and offset management plans.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.4</p> <p>Table 8-46</p> <p>Chapter 23: Cumulative Impacts</p> <p>Table 23.3.1</p> <p>Table 23-8</p> <p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p> <p>Section 5 and 6</p>
140	140.0006	State Agency	Land Resources		<p>Inconsistent approach in reporting intensive animal activities - Table F.2 in Appendix F details land uses based from QLUMP to detail predominant land use. However, Section 7.5.2.2 in Chapter 7 uses EA data to detail land use. As a result Table 5.2 details 2 properties where intensive animal operations are the predominate land use, whereas Section 7.5.2.2 identifies nine intensive animal operations. The inconsistent use of data does not provide for a consistent narrative when discussing agricultural land uses.</p>	<p>The narrative in the EIS needs to be consistent to ensure that agricultural values, based on farming practices and systems, are accurately identified and detailed.</p>	<p>This issue is noted. A consistency check will be made for the revised draft EIS to ensure consistency in terminology.</p> <p>The revised draft EIS Chapter 8: Land Use and Tenure, Sections 8.4.1 and 8.5.1, have been updated in terms of information on land uses as well as information on intensive animal operations. The methodology used to provide the information in the revised draft EIS is presented in Section 8.3.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.3</p> <p>Section 8.4.1</p> <p>Section 8.5.1</p>
140	140.0007	State Agency	Land Resources		<p>Inconsistency with regards to amount of ALC Class A land to be permanently sterilised by the project.</p> <p>Table 8-20 states 1,913.24 ha of ALC Class A/B land will be permanently sterilised, however Table 8.21 totals for Class A land in the Goondiwindi and</p> <p>Toowoomba LGAs don't add up to 1,913.24, rather 1,766.88 which is what is recorded in the narrative.</p>	<p>Amend figures to be consistent throughout this Chapter and others referring to loss of ALC Class A and B land</p>	<p>The agricultural land class (ALC) data has been reviewed and updated in the revised draft EIS (Chapter 9: Land Resources, Table 9.21 and Table 9.22) to incorporate the design changes made since the draft EIS was issued. A consistency check has been made for the revised draft EIS and the tables have been amended.</p> <p>ARTC are committed to minimising loss of agricultural land by co-locating with existing rail or road or aligning with property boundaries, where possible. As described in the revised draft EIS Chapter 2: Project Rationale Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across the Inland Rail program of works. Where the loss of agricultural land was unable to be avoided, refinement of the horizontal alignment was considered (among other environmental, social, cultural, economic and technical constraints) to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>The Project will result in the reduction of productive agricultural land within the Project footprint, which has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. When quantifying potential productive agricultural land sterilised by the permanent footprint, it is assumed that productive land that is mapped by QLUMP as occurring within the existing South Western System and Millmerran Branch Line rail corridors and within existing road corridors has already been sterilised. On this basis, this assessment only considers the areas within the permanent footprint that are located outside of the South Western Line and Millmerran Branch Line rail corridors and existing road corridors.</p> <p>Approximately 1,449.86 ha of land within the permanent footprint is classified as Class A agricultural land, with a further 73.71 ha classified as Class B agricultural land. This equates to a total of 1,523.57 ha of land within the permanent footprint (outside of existing rail and road corridors) classified as Class A or Class B agricultural land, which will be sterilised. These areas are primarily used for grazing and cropping, as well as some irrigated cropping and irrigated perennial horticulture uses. Approximately 1,255.19 ha of land within the permanent footprint is also within an IAA (Table 8-11 of Chapter 8: Land Use and Tenure).</p> <p>Approximately 2,047.65 ha of land within the temporary footprint is classified as Class A agricultural land, and 82.08 ha is classified as Class B agricultural land. This equates to a total of 2,129.73 ha of land within the temporary footprint as being classified as Class A or Class B agricultural land, which will be temporarily used for the construction of the Project. These areas are used mainly for grazing activities. Approximately 1,545.12 ha of land within the temporary footprint is also within an IAA (Table 8-11 of Chapter 8: Land Use and Tenure).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the <i>Acquisition of Land Act 1967</i> (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform the development of the detailed design and Construction Environmental Management Plan.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 8: Land use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.2</p> <p>Table 8-11</p> <p>Chapter 9: Land Resources</p> <p>Table 9-21</p> <p>Table 9-22</p>
140	140.0008	State Agency	Flora and Fauna		<p>Fish passage - Where waterways providing fish passage will be impacted in a manner greater than that described in the ADR, a development approval is required. Further fish surveys should be undertaken during times of adequate flow in the wet season to gain an understanding of fish species composition and population abundance.</p> <p>Only then can the scale of impacts from the project be fully understood.</p>	<p>The report outlines that during three field surveys the presence and abundance of fish species would have been limited by dry conditions. This is evident when noting that the surveys were conducted prior or after significant wet season flows. It is noted that the report states that 'a greater diversity and abundance of fish across watercourses... is therefore assumed...'</p> <p>However, the assumption of greater diversity does not necessarily describe impacts resulting from the development.</p>	<p>As discussed in Appendix L: Terrestrial and Aquatic Ecology Technical Report, an additional targeted fish survey across 12 sites and an eDNA assessment have been conducted since the draft EIS was released for public notification. The scope of works was expanded, and a range of additional survey techniques were applied to assess fish assemblages at aquatic ecology sites that were suitable. Further seasonal fish surveys, for any waterway intersections that do not meet ADR for waterway barrier works requirements, are to be conducted during times of adequate flow to gain an understanding of the baseline fish species composition and population abundance of these species.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Section 5.3</p>
140	140.0009	State Agency	Flora and Fauna	Terrestrial flora	<p>Biosecurity - To ensure the project aligns with GRC's Biosecurity Plan for the strategic management of priority invasive species, it is recommended that the EIS lists and integrates GRC's priorities for invasive species management in relevant sections of Chapter 10, Chapter 22, and in the development of the Biosecurity sub-plan of the CEMP. This should include GRC's consideration of species not present, the listing of prioritised restricted species, and priority non-declared species.</p>	<p>The proponent has identified and listed restricted invasive species and Weeds of National Significance (WoNS) but has failed to reference the GRC Biosecurity Plan or state how the listed species are to be prioritised for strategic management. There is little alignment with GRC Regional Council's Biosecurity Plan and priorities for invasive species.</p>	<p>Material from the GRC Biosecurity Plan has been incorporated into the revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report including its objectives for invasive species management and a Biosecurity plan will be developed for the Construction Environmental Management Plan (CEMP) as stated in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p>
140	140.0010	State Agency	Surface Water		<p>This Section outlines that three waterways providing for fish passage will be realigned/diverted. However, this Section does not acknowledge that filling sections of waterways and consequent flow diversions constitute waterway barrier works. Such works are assessable development and require an approval. This Table outlines the mitigation measures relating to impacts to surface waters. Under row construction it is explained that construction tasks within the 1% AEP flood area will be scheduled to avoid periods of elevated flood risk.</p> <p>However, in-stream works should be avoided in 20% AEP flood events to minimise impacts to waterways providing for fish passage.</p>	<p>The filling of sections of waterways and consequent altering flow means that diversions constitute waterway barrier works that are assessable development.</p> <p>Such works require an approval under the Planning Act 2016.</p> <p>All in-stream works are to be completed as quickly as possible, but must be avoided during times of elevated flows.</p>	<p>A review of the DAF Queensland Waterways for Waterway Barrier Works mapping was undertaken, identifying a total of 100 waterways for waterway barrier works that are intersected by the Project alignment. Section 13.4.1 of Chapter 13: Surface water acknowledges that barrier works include construction, raising, replacement and some maintenance works on structures. Waterways for waterway barrier works that are intersected by the Project alignment are identified in Table 13-8 of Chapter 13: Surface Water.</p> <p>The detailed design will continue to be developed to minimise the extent of impacts to waterways, riparian vegetation and in-stream flora and habitats, in accordance with the intent of DAF' (2018) 'Accepted development requirements for operational work that is constructing or raising waterway barrier works'. Where the Project is unable to comply with the Accepted Development Requirements, a development approval for operational work that is constructing or raising waterway barrier works will be required (Section 13.6.2, Table 13-16 of Chapter 13: Surface Water).</p> <p>During construction, in-stream works will be undertaken in accordance with the Accepted Development Requirements for lower-risk watercourses. In-stream works for higher-risk watercourses will be planned and undertaken in accordance with applicable assessment benchmarks for assessable development.</p>	<p>Chapter 13: Surface Water</p> <p>Section 13.4.1</p> <p>Section 13.6.2</p> <p>Table 13-8</p> <p>Table 13-16</p>
140	140.0011	State Agency	Flora and Fauna		<p>Training in biosecurity risks and prevention and the requirements under the Biosecurity Act 2014 is not included in the list that requires all employees, contractors and subcontractors to receive. The reference to the reinstatement of the wild dog fence does not include a include the Section S91(3) requirement of the Biosecurity Act 2014.</p> <p>(Refer to the above comment)</p>	<p>Recommend that biosecurity is included in the list of training requirements for all employees, contractors and subcontractors. Include a reference to the requirement of the Section S91(3) of the Biosecurity Act 2014.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan states that a Biosecurity Management Plan will be developed as a component of the CEMP. Chapter 24: Draft Outline Environmental Management Plan provides the training and awareness requirements of the Project in relation to the implementation of the CEMP. It states that a training register will be developed and maintained throughout construction and commissioning that identifies requirements in relation to:</p> <ul style="list-style-type: none"> Qualifications and competencies Project-specific environmental training courses, refreshers and inductions relevant to different activities/groups of personnel/locations. <p>Implementation of the Biosecurity Management Plan during construction will ensure that training of staff and contractors will occur. The specifics of training will be contained within the Plan which will be prepared during detailed design using field-verified data. Pest animal management controls, including protocols for severing, realigning and reinstating the wild dog check fence and the DDMRB rabbit fence will be included as part of the Biosecurity Management Plan.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>
140	140.0012	State Agency	Land Resources		<p>DAF is concerned over the potential for adverse impacts to poultry operations as a result of the operational activities of the project.</p>	<p>What is the mitigation strategy to ensure that adverse impacts to poultry operations, including bird deaths, as a result of the operation of the rail line, will be appropriately mitigated to ensure that there is a no net loss in poultry capacity and production in the regions where impacts occur? The EIS should detail the mitigation strategy in this regard and include this in the projects ongoing commitments and reporting requirements.</p>	<p>In response to public notification of the draft EIS, ARTC has refined the Project alignment, which has changed the potential impacts for a number of agricultural enterprises, including cattle feedlots, piggeries and poultry farms. The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential direct or indirect impacts to a Millmerran-based chicken farm infrastructure and their piggery, poultry and egg farm operations (Chapter 8: Land Use and Tenure, Section 8.5.1). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community that include (Chapter 2: Project Rationale, Section 2.10.9, and Appendix B3: Changes to Reference Design since Draft EIS):</p> <ul style="list-style-type: none"> Reducing the potential impacts to workers travelling to the Millmerran Power Station, the piggery on Lindenmayer Road and landowners travelling within their community (home and local townships). Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. Reduces the adverse economic and social impacts by: Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. Avoids direct impacts to future planned infrastructure. The access road for the Lindenmayer Road infrastructure no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. <p>For more information, refer to Chapter 17: Social, Sections 17.5 and 17.6 and Chapter 16: Noise and Vibration of the revised draft EIS.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.10.9</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Section 17.6</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
140	140.0013	State Agency	Flora and Fauna		Draft EIS does not meet TOR 7.5 - location of rock sample drill sites is expressed in Eastings and Northings not in latitude and longitude.	Meet the TOR requirement.	Revised draft EIS Chapter 13: Surface Water, Section 13.2, and Appendix S: Surface Water Quality Technical Report, Section 3.1 indicate that the Project will have accepted development and assessable development barrier works as part of the secondary approval process. Where the Project transverses mapped waterways for waterway barrier works Appendix S: Surface Water Quality Technical Report, Table 2.1, states the following: "Acceptable development requirements are defined in the DAF guideline: Accepted development requirements for operational work that is constructing or raising waterway barrier works (2018), and at a minimum include standards such as: <ul style="list-style-type: none"> Development work minimises impacts to waterways and fish habitats Where works are for the replacement of an existing waterway barrier work, the defunct waterway barrier work is to be completely removed as soon as possible and within four weeks of the completion of the replacement works For any part of the waterway bed or banks adjacent to the works that has been altered by the waterway barrier works, the site is restored and/or rehabilitated, including fish habitat elements. Inland Rail commits to ongoing consultation during detailed design with DAF, including about the acceptable development requirements regarding timing and construction timing for waterway for watery barrier works. The Project is likely to require applications for waterway barrier works or demonstrate compliance with acceptable development requirements. This will be further described in detailed design and early works and pre-construction activities stages of the Project." The Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project.	Chapter 13: Surface Water Section 13.2 Appendix S: Surface Water Quality Technical Report Section 3.1 Table 2.1
140	140.0014	State Agency	Flora and Fauna		Where waterway crossings are constructed in accordance with DAF factsheet "What is not a waterway barrier work?" or in accordance with the accepted development requirements for operational work that is constructing or raising waterway barrier works, the works do not result in a significant residual impact. Where waterway barrier works require a development approval, the associated assessment of an application will determine whether the development results in a significant residual impact. Any acceptable Significant Residual Impact is likely to require an environmental offset. However, an environmental offset will not be considered until it has been demonstrated that all reasonable measures have been taken to firstly avoid, minimise and/or mitigate impacts to waterways providing for fish passage (refer to Queensland Environmental Offsets Policy). Recommended condition: Enter into an agreed delivery arrangement to deliver an environmental offset in accordance with the Environmental Offsets Act 2014 to counterbalance any significant residual impacts on the matter of State environmental significance, being waterways providing for fish passage. Reason: To counterbalance all significant residual impacts to waterways providing for fish passage. Timing: Prior to commencing any works that impact on waterways providing for fish passage.	The Table 5.18 outlines that the likelihood of a significant residual impact to waterways providing for fish passage is uncertain.	Based on changes to the reference design, additional survey work and impact assessment undertaken in the revised draft EIS, the likelihood of significant residual impacts to waterways providing for fish passage is now "not anticipated" as discussed in Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 5.3
140	140.0015	State Agency	Flora and Fauna		This Section of the EIS should be amended to the following effect: Remove all references to "self-assessable codes" and replace with "accepted development requirements". All waterways providing for fish passage, including those that may not be mapped under the spatial data layer Queensland waterways for waterway barrier works must be identified to determine the full extent of impacts the project will have on waterways providing for fish passage. A waterway is defined under the Fisheries Act 1994 and further guidance can be found on Fisheries Queensland's factsheet, What is a waterway? Where a waterway is present on ground but not mapped, the proponent should seek pre-approval advice from the State Assessment and Referral Agency to seek a determination of the waterway to identify whether works may be accepted or assessable development. Remove text "and some regularly rebuilt waterway barriers" where referred to "self-assessable works".	Aquatic ecology technical report - The reports states that the spatial data layer Queensland waterways for waterway barrier works shows the extent of Fisheries' interests in relation to waterway barrier works and that this layer indicates whether waterway barrier works can proceed under self-assessable code or require a development approval. This is not correct, the Fisheries Act 1994 defines a waterway, not the spatial data layer. The spatial data layer is only a tool to identify whether specific types of waterway barrier works can be constructed under the relevant accepted development requirements or require development approval. Self-assessable codes are obsolete as they have been transitioned to accepted development requirements. This Section states that self-assessable work allows for some regularly rebuilt waterway barriers. "Self-assessable" works conducted under the accepted development requirements do not allow for regularly rebuilt waterway barriers.	Amendments have been made to the wording throughout Appendix L: Terrestrial and Aquatic Ecology Technical Report in relation to the intent of the <i>Fisheries Act 1994</i> (Qld) and to include discussion on "accepted development requirements", where applicable. Appendix L: Terrestrial and Aquatic Ecology Technical Report states that aquatic field surveys were carried out across 34 sites over three survey events. The surveys were used to describe ecological values of watercourses within the study area. The surveys included, but were not limited to, fish surveys, aquatic habitat assessments and waterway barrier works assessments, to determine if a particular feature is a defined waterway that provides for fish passage. Additionally, Appendix S: Surface Water Quality Technical Report Section 3.1.2 states that ground surveys were undertaken for opportunistic water quality sampling at the same time and, in addition to, on-ground aquatic ecology surveys. Unmapped waterways for fish passage have been noted during these on-ground assessments. Reference to "and some regularly rebuilt waterway barriers" where referred to "self-assessable works" has been deleted from Chapter 11: Flora and Fauna and Appendix S: Surface Water Quality Technical Report.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix S Surface Water Quality Technical Report Section 3.1.2
140	140.0016	State Agency	Flora and Fauna		It will be recommended to condition fish salvage in accordance with DAF fish salvage guidelines. Recommended condition: Where waterways and waterbodies require de-watering, fish must be salvaged in accordance with DAF's Guidelines for fish salvage found here: daf.qld.gov.au/business-priorities/fisheries/habitats/policiesguidelines/factsheets/guidelines-for-fish-salvage Additional Advice to attach to this condition as a note: A General Fisheries Permit is required for the use of regulated apparatus and when fish in possession (e.g. during transport to other locations) exceeds the recreational limits prescribed by the Fisheries (General) Regulation 2019. The consequent stocking of fish into Queensland waters may require an authority. Advice should be sought from DAF prior to any fish salvage operations. Reason: To minimise the risks of fish injury and mortality and fish health being compromised by the project. Timing: At all times.	Aquatic Ecology Technical Report - Table 41 highlights that when surface water storages are dewatered, reasonable measures to avoid the spread of pest species will be taken. However, surface water storage areas may contain other (native) fish. Any fish (which is not a declared pest) must be salvaged prior to dewatering to prevent injury and mortality of fish. Fish salvage in accordance with DAF fish salvage guidelines must be undertaken prior to complete dewatering where fish are present.	As stated in Appendix L: Terrestrial and Aquatic Ecology Technical Report, if dewatering of existing storages is required, fish salvage should occur in accordance with the DAF Guidelines for fish salvage. If dewatering of existing storages is required, dewatering strategies will be required to comply with the Biosecurity Act to take reasonable measures to avoid the spread of pest species (e.g. screening of pump intake). This includes the salvage and relocation of native fish. This will be managed in accordance with guidelines for fish salvage (DAF, 2018). An appropriately qualified person will be consulted to make an assessment on the method of recovery, transport and release of fish and other aquatic fauna, as required.	Appendix L: Terrestrial and Aquatic Ecology Technical Report
140	140.0017	State Agency	Flora and Fauna		Draft EIS does not meet TOR 6.4 - serious consideration has not been given to avoidance of acid sulphate rocks.	Meet TOR requirement.	Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy do not discuss the use of fencing across small waterways. Chapter 13: Surface Water, Section 13.2, and Appendix S: Surface Water Quality Technical Report, Section 3.1 indicate that the Project will have accepted development and assessable development barrier works as part of the secondary approval process. Where the Project transverses mapped waterways for waterway barrier works Appendix S: Surface Water Quality Technical Report, Table 2.1, states the following: "Acceptable development requirements are defined in the DAF guideline: Accepted development requirements for operational work that is constructing or raising waterway barrier works (2018), and at a minimum include standards such as: <ul style="list-style-type: none"> Development work minimises impacts to waterways and fish habitats Where works are for the replacement of an existing waterway barrier work, the defunct waterway barrier work is to be completely removed as soon as possible and within four weeks of the completion of the replacement works For any part of the waterway bed or banks adjacent to the works that has been altered by the waterway barrier works, the site is restored and/or rehabilitated, including fish habitat elements. Inland Rail commits to ongoing consultation during detailed design with DAF, including about the acceptable development requirements regarding timing and construction timing for waterway for watery barrier works. The Project is likely to require applications for waterway barrier works or demonstrate compliance with acceptable development requirements. This will be further described in detailed design and early works and pre-construction activities stages of the Project."	Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy Chapter 13: Surface Water Section 13.2 Appendix S: Surface Water Quality Section 3.1 Table 2.1
140	140.0018	State Agency	Surface Water		Appendix N - environmental offset delivery strategy Qld. DAF notes that the Project will result in significant adverse impacts, even after the implementation of all mitigation measure, including rehabilitation. As such, offsets will be required under the EPBC Act Offsets Policy and Qld Environmental Offsets Policy 2017. DAF understands that State Agencies will be consulted during the development of Environmental Offset Delivery Plans and Offset Area Management Plans.	Development of the Environmental Offset Delivery Plans and Offset Area Management Plans should ensure that ALC Class A/B land, land within an Important Agricultural Area and productive agricultural lands are not converted to a non-agricultural use for offsetting purposes.	Section 8.5.3 in Chapter 8: Land Use and Tenure states, biodiversity offsets will be delivered as per the relevant legislative requirements, including the EPBC Act, and ARTC's Queensland Offset Program typically targets land that holds inherent biodiversity value which reflects those MNES and MSES likely to be impacted by the Project. Offset site selection is undertaken on a hierarchical basis which preferentially targets land that contains ecological values generally associated with intact remnant and regrowth ecological communities (habitat) and in doing so, avoids or minimises, to the greatest extent possible, impacts to highly modified agricultural land. Offset development will target regrowth areas as a preference rather than active agricultural land. Chapter 24: Draft Outline Environmental Management Plan outlines that during detailed design, ARTC will undertake consultation with DAF for the development of the final Environmental Offsets Delivery Strategy and delivery plans to ensure agricultural values are not adversely impacted by environmental offsets.	Chapter 8: Land Use and Tenure Section 8.5.3 Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
140	140.0019	State Agency	Flora and Fauna		Draft EIS does not meet TOR 7.7 - Only 7 surveys were filled out from Goondiwindi shire residents to inform the social impact assessment. This is clear evidence of a lack of engagement with local communities. No remediation was provided. ARTC has been criticised by both Goondiwindi Regional Council and Toowoomba Regional Council for not listening and not taking advice. Submitter provides personal examples of engagement with ARTC in Appendix A.	Meet the TOR requirement.	<p>ARTC acknowledge concerns about some of the laydown areas proposed along the alignment. The laydown areas have been strategically located for the Project to enable robust construction methodologies. ARTC are committed to ongoing consultations with impacted landowners through the Detailed Design and Construction Works stages with the contractor. This will enable the Project to further develop and implement property-specific mitigation measures to avoid or minimise impacts.</p> <p>As described in Section 5.6.7 of Chapter 5: Project Description of the revised draft EIS, several laydown areas have been identified along the length of the alignment and positioned to avoid or minimise potential impacts to environmental and social receptors. The locations have been chosen to avoid areas that are within the 1% AEP floodplains where possible. However, by virtue of the requirement of laydown areas for construction bridges, some laydown areas must be within flood plains and near watercourses or drainage features. In such instances, the following precautions will be taken:</p> <ul style="list-style-type: none"> The site will be surveyed prior to site establishment to understand the exact extent of potential flooding impact to facilities and storage areas The earthworks and temporary drainage will be designed to minimise flooding impacts. <p>Fuel storage areas will be bunded, capacity restricted to no larger than required for reasonable operations, and preferentially stored at the furthest point away from watercourses.</p>	Chapter 5: Project Description Section 5.6.7
140	140.0020	State Agency	Flora and Fauna		Draft EIS does not meet TOR 10.10(c) - Draft EIS does not identify quantities of wastewater that may be generated during construction.	Meet the TOR requirement.	<p>Wastewater generated during construction would include wastewater from accommodation facilities. A single 300-bed non-resident workforce accommodation with 250 L/person/day water usage could generate up to 0.04 ML/day of treated wastewater when at 100 per cent occupancy. Therefore two accommodation facilities could generate up to 0.08 ML/day (Chapter 5: Project Description, Section 5.4).</p> <p>The estimated construction water requirements for civil earthworks, track works and revegetation range between 0.3 to 12 ML/day as shown in Figure 5.23 (Chapter 5: Project Description, Section 5.6.24). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p> <p>Since construction water demands are much greater than the quantity of wastewater generated, it is likely that most of the time any wastewater would be used for construction and not discharges are likely. Where industrial or trade waste may be generated by construction activities, the resultant wastewater will be captured and, where possible, recycled. Where recycling is not feasible, the captured wastewater will be collected by a licenced contractor and taken offsite for disposal at an appropriately licenced wastewater facility (Chapter 13: Surface Water, Section 13.6.2, Table 13-16).</p> <p>Predictive modelling has determined that groundwater seepage may occur from the face of deep cuts (>10 m) where groundwater is intersected; however, the assessment has concluded that seepage water, in general, will evaporate (Chapter 15: Groundwater, Section 15.6.2). Groundwater data will be refined during detailed design when additional site-specific data hydrogeological data is combined with the finalised design for model re-calibration and re-run of predictive simulations. Further details are provided in Chapter 15: Groundwater Table 15.20 (Section 15.7.2) and Chapter 13: Surface Water, Section 13.5.1.</p>	Chapter 5: Project Description Section 5.4 Section 5.6.24 Figure 5.23 Chapter 13: Surface Water Section 13.5.1 Section 13.6.2 Table 13-16 Chapter 15: Groundwater Section 15.6.2 Section 15.7.2 Table 15-20 Appendix B5: Construction Water Requirements
140	140.0021	State Agency	Flora and Fauna		Design Drawings part 2 of 2. Plans 2025, 2027, 2032, 2034, 2037, 2039, 2042, 2045, 2049, 2056, 2063, 2065, 2068, 2069	Laydown areas do not have a functional requirement to be located in a waterway and should therefore be placed outside of waterways.	<p>Laydown areas have been revised where possible and are presented in the updated Appendix B1: Design Drawings.</p> <p>ARTC acknowledge the concerns of some of the laydown areas proposed along the alignment. The laydown areas have been strategically located for the Project to enable robust construction methodologies. ARTC are committed to ongoing consultations with impacted landowners through the Detailed Design and Construction Works stage planning process with the contractor. This will enable the Project to further develop and implement property-specific mitigation measures to avoid or minimise impacts.</p> <p>As described in Section 5.6.7 of Chapter 5: Project Description of the revised draft EIS, several laydown areas have been identified along the length of the alignment and positioned to avoid or minimise potential impacts to environmental and social receptors. The locations have been chosen to avoid areas that are within the 1% AEP floodplains where possible. However, by virtue of the requirement of laydown areas for construction bridges, some laydown areas must be within flood plains and near watercourses or drainage features. In such instances, the following precautions will be taken:</p> <ul style="list-style-type: none"> The site will be surveyed prior to site establishment to understand the exact extent of potential flooding impact to facilities and storage areas The earthworks and temporary drainage will be designed to minimise flooding impacts. <p>Fuel storage areas will be bunded, capacity restricted to no larger than required for reasonable operations, and preferentially stored at the furthest point away from watercourses.</p>	Chapter 5: Project Description Section 5.6.7 Appendix B1: Design Drawings
140	140.0022	State Agency	Flora and Fauna		<p>Recommended Condition:</p> <ul style="list-style-type: none"> Spoil is not disposed of within waterways and is managed to prevent acid soil development. Land profiles within the high banks of waterways that are temporarily disturbed by the development works, other than those within the permanent development footprint, must be promptly restored to pre-work profiles. <p>Reason: To minimise construction impacts to waterways providing for fish passage.</p> <p>Timing: At all times. The following advice should be provided: Under the Planning Regulation 2017, works involving constructing or raising waterway barrier works must be undertaken in accordance with the relevant accepted development requirements or under a development approval (assessable development). The placement of temporary waterway barriers to facilitate construction of bridges may be conducted under DAF's accepted development requirements for operational work that is constructing or raising waterway barrier works (ADR). If any proposed temporary waterway barrier works cannot meet the accepted development requirements, this aspect of the works will need to be covered under a development approval under the Planning Act 2016. The applicant should note that time limitations apply to all temporary waterway barriers in place under the ADR. The prescribed limits are 360 days for mapped green and amber waterways and 180 days for mapped red and purple waterways. Within this timeframe construction must commence and be completely removed from the high banks of the waterway. If there is any possibility (e.g. due to weather, construction delays, etc.) the barriers need to be in place for longer than the prescribed period under the ADR, the applicant is advised to include proposed temporary waterway barrier works in a development application. </p>	<p>The following reasonable and relevant conditions are recommended to be included in the Stated Conditions of the Coordinator General's Evaluation Report for the EIS to minimise impacts on waterways providing for fish passage, a Matter of State Environmental Significance. For bridges that do not constitute waterway barrier works an operational works approval for constructing or raising waterway barrier works is not required. However, temporary waterway barrier works including, but not limited to, haul roads, piling pads, working platforms, coffer dams etc. are likely required to facilitate the construction of bridges. Such development aspects are likely to require an authority.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report outlines that the Project may require obtaining approval for aspects of development that are assessable under Schedule 10 of the <i>Planning Regulation 2017</i> (Qld). For example, modification of the existing Yelarbon levee may be considered a Category 2 levee requiring a development approval under the <i>Planning Act 2016</i> (Qld).</p> <p>Appendix S: Surface Water Technical Report, Section 7.2, Table 7.1 states that: The revised reference design will be further developed during detailed design to:</p> <ul style="list-style-type: none"> Minimise the potential for diversion of watercourses, (as defined under the Water Act), and waterways (as defined under the Fisheries Act). Minimise the extent of impacts to waterways, riparian vegetation and in-stream flora and habitats, in accordance with the intent of: Riverine protection permit exemption requirements (WSS/2013/726) (DNRME, 2023) Site-specific risk assessments for each waterway crossing will be performed after the construction timing and methods have been determined. The proponent commits to develop an assessment procedure that considers site-specific attributes (topography, soil conditions, water quality, in-stream habitat and aquatic ecology, ephemeral nature, fish passage, sediment loading type and intensity of construction works) to minimise risks and impacts on the watercourse and its ecology. Construction procedures will follow the recommended procedures provided in the Soil Management Plan. An in-stream monitoring program for flora and fauna will be developed in detailed design to inform design and management measures to be used at proposed waterway crossing activities during construction. 	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Appendix S: Surface Water Quality Technical Report Section 7.2 Table 7.1 Appendix L: Terrestrial and Aquatic Ecology
141	141.0001	Private	Flora and Fauna		Draft EIS is missing the following critical details: fauna fencing specifications and locations at which chainages, chainages where fauna spotting will occur during construction.	Provide missing information.	<p>In terms of fencing design, for interfaces along the alignment, the Chapter 21: Hazard and Risk chapter, Section 21.6.2 Table 21-16 notes that 'Specific fencing requirements are to be agreed through discussion with adjoining landowners and asset owners through the design development.' There are various types of fencing that will be required. ARTC has standard drawings for the various types of fences. These eleven standards can be found on the ARTC website at extranet.artc.com.au/eng_track-civil_drawings.html. As there are various standards depending on the type of fence, it is not proposed to list these standards. Typically not all design standards have been listed.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS: Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Border to Gowrie Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010 respectfully). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised draft Appendix P: Fauna Connectivity Strategy.</p>	Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix P: Fauna Connectivity Strategy
141	141.0002	Private	Surface Water		Draft EIS is missing the following critical details: construction water management plan, modelling of deep cuts required to assess for seepage	Provide missing information.	<p>Construction Water Information is provided in Section 5.6.24 of Chapter 5: Project Description regarding construction water, specifically the estimated volumes required, water quality parameters, potential sources, access and reliability. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p> <p>Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan, to be finalised prior to the commencement of construction.</p> <p>Seepage Predictive groundwater models have been developed for the revised draft EIS to assess potential groundwater seepage and drawdown due to interception of groundwater and resulting drainage within deep cuts (Chapter 15: Groundwater, Section 15.6.2). Cuts that have been subject to modelling were selected as those most likely to intersect groundwater, as well as best representing local geological conditions and worst-case potential impacts.</p> <p>The modelling results for seepage estimates are presented in Section 15.6.2 of Chapter 15: Groundwater and provide estimates for the entire length of each modelled cut, with rates provided for typical conditions and wet conditions (following periods of high rainfall recharge). These Predictive simulations indicate:</p> <ul style="list-style-type: none"> Seepage is concentrated at the bottom of the cuts, on both sides of infill material Temporary increases in seepage may be observed in cuts with sandy soil or weathered sandstone following rainfall events Seepage of groundwater from bedrock is anticipated to be low except where it may be enhanced by weathering of fractures. <p>The modelling results for drawdown estimates are presented in Section 15.6.2 of Chapter 15: Groundwater. These modelling results indicate that drawdown is only expected to occur at three of the seven modelled locations. At these locations where drawdown is anticipated to occur, the maximum extent of drawdown is predicted to range from 10 m to 43 m from the rail centreline, wholly contained within the Project footprint.</p>	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.6.2 Appendix B5: Construction Water Requirements

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0003	Private	Land Resources		Draft EIS is missing the following critical details: mapping the unweathered sections of the Kumbailla beds and Walloon Coal Measures to assess ARD possibility and inform route choice.	Provide missing information.	From both the detailed geotechnical investigation undertaken by Macquarie Geotechnical and the detailed (1:10,000 mapping scale) soil investigation undertaken by Aurecon for the Project to map the distribution of underlying surface geology and soils developed from these materials, there was no indication of the presence of potential acid rock drainage (ARD) from either the unweathered Kumbailla Beds or Walloon Coal Measures (see Appendix G1: Geotechnical Reports - Investigation Results and Appendix G2: Macquarie Geotechnical - Laboratory Results). Revised draft EIS Chapter 9: Land Resources Section 9.4.2 and Section 9.5.7 have been updated to include details of acid sulfate soils and acid rock following these geotechnical investigations.	Chapter 9: Land Resources Section 9.4.2 Section 9.5.7
141	141.0004	Private	Social Impact Assessment	Local business and industry procurement	Draft EIS is missing the following critical details: leaving the briefing, capacity building and diversification of local businesses to the principal contractor post appointment (and therefore post approval).	Provide missing information.	ARTC commenced delivery of its Business Capability program in the SIA study area in late 2020, providing local and Indigenous small to medium enterprises (SMEs) and social enterprises with access to workshops, presentations and mentoring support aimed at improving their understanding of how to supply to Inland Rail. Appendix X: Social Impact Assessment, Section 6.2.6 has been updated in this regard.	Appendix X: Social Impact Assessment Section 6.2.6
141	141.0006	Private	Traffic and Transport		Draft EIS is missing the following critical details: design of individual occupational crossings and road accesses for impacted properties; deferral of the Road Use Management Plan (RUMP) until the detailed design phase, especially with respect to pavement monitoring and rectification of project induced damage.	Provide missing information.	With regard to affecting the land on individual properties: Severance and fragmentation of rural properties are considered in revised draft EIS Chapter 8: Land Use and Tenure, and the results are summarised in Section 8.5.1. It is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads. ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progress. In accordance with mitigation measures in Section 8.6.2 Chapter 8: Land Use and Tenure, the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Where the proposal affects internal property access arrangements, input has been and will continue to be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC will consult with relevant property owners/occupants regarding alternative access arrangements, where feasible alternatives are available, ARTC will identify feasible and reasonable measures to minimise impacts on existing operational arrangements/properties. Whilst a significant amount of work has been completed to assess the potential road impacts as outlined in the Traffic Impact Assessment in Appendix AA: Traffic Impact Assessment of the revised draft EIS, the Principal Contractor is not on board the Project until Detailed Design and as such the construction routes are not finalised by the Contractor. As a result, a complete RUMP cannot be delivered until that time. This is normal process for construction Projects, and is in line with Workplace Health and Safety legislation requirements. This is because many assumptions during the previous stages that will impact on road use management strategies, are not confirmed until detailed design progresses, or construction scheduling allows full visibility of the impact of construction vehicles. However, pavement monitoring and rectification is committed to within the revised draft EIS in Appendix AA: Traffic Impact Assessment Section 5.6.3.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Appendix AA: Traffic Impact Assessment Section 5.6.3
141	141.0007	Private	Project scope		Draft EIS is missing the following critical details: fencing standards; specification requirements for rolling stock to use the rail, with respect to safety and environment (including noise) emissions; borrow pits and accommodation camps; deferral of the operational software (ATMS) until the Operations stage of the entire Inland Rail project is operational, with no explanation of signalling and communication in the interim. Signalling and communications on the interrelated Queensland Rail lines are explained, but not for B2G.	Provide missing information.	A revised draft EIS has been prepared based on an updated reference design. The revisions to the EIS and reference design include feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and an additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. The revised draft EIS includes additional information on the following matters: <ul style="list-style-type: none"> ▶ Fencing standards and approach, to Reference Design Level, are provided in Chapter 5: Project Description, Section 5.4.12. ▶ As stated in Chapter 5: Project Description, Section 5.1, at the commencement of operation, the Project will accommodate the use of double-stacked 1,800 metres (m) long freight trains. All chapters of the EIS have been prepared with respect to this rollingstock/rolling stock specification. ▶ Details of borrow pits are provided in Chapter 5: Project Description, Section 5.6.15. ▶ Details of non-resident workforce accommodation are provided in Chapter 5: Project Description, Section 5.6.4. ▶ Details of Advanced Train Management System (ATMS), including integration with Queensland Rail lines, are provided in Chapter 20: Traffic, Transport and Access, Section 20.5.1 and Chapter 5: Project Description, Section 5.4.14 and Section 5.8.9. The Project will be operated using ATMS, a communications-based safeworking signalling system currently being developed by ARTC. ATMS incorporates modern global positioning system controlled train movements. Each train 'knows' where it is on the network and can be automatically braked if it exceeds speed or does not have permission to be on a Section of track. 	Chapter 5: Project Description Section 5.1 Section 5.3.3 Section 5.4.12 Section 5.4.14 Section 5.6.4 Section 5.6.15 Section 5.8.9 Chapter 20: Traffic Transport and Access Section 20.5.1
141	141.0008	Private	Social Impact Assessment		Draft EIS is missing the following critical details: details of any legacy benefits, levels of employment hours and contract dollars to be provided to locals.	Provide missing information.	Revised draft EIS Appendix X: Social Impact Assessment (throughout) identifies the Project's potential to leave the following legacies (lasting positive social outcomes): <ul style="list-style-type: none"> ▶ Access to construction training and employment opportunities for residents in the project region, which will build the local skills base and support the well-being of personnel and families ▶ Training and employment opportunities for people who are disadvantaged in the labour market, increasing both personal capacity and regional labour force capacity ▶ Opportunities for local and indigenous businesses to supply goods and services to the construction contractors, with potential to support business capacity and development ▶ Potential to support regional economic development which will sustain employment and business activity for the long term, with consequent benefits for the employment of residents in the Ipswich and Scenic Rim LGAs ▶ Potential for some laydown areas to be left in place for their legacy value to property owners or businesses, to be determined as part of ongoing engagement with local stakeholders ▶ Community benefits of reduced freight truck movements on local and state road networks. ARTC is also sponsoring an independent resource to measure community wellbeing, which will offer shared value to local stakeholders and support future engagement and partnership opportunities. Appendix X: Social Impact Assessment, Section 7.4.9 provides an updated description of legacy benefits. Additional legacy projects continue to be developed in collaboration with local Councils and other stakeholders as described in Appendix X: Social Impact Assessment, Section 8.5.3. Appendix X: Social Impact Assessment, Section 8.3.1 notes that to boost local workforce numbers, the Project's procurement process for the construction contract enables competitive bidding for local employment targets and procurement targets, incentivising the contractors to maximise local benefits. Inland Rail's tender assessment criteria includes local Indigenous participation as a key element of all construction tender assessments. Strategies for recruitment and training of personnel from the Goondiwindi and Toowoomba LGAs and Targets (numbers and percentages) for employment by location (i.e. SIA study area/LGA) and demographic (e.g. participation by people under 25 years and Indigenous people) will form a key part of the training and recruitment process. As outlined in Section 8.7.3 of Appendix X: Social Impact Assessment, the Contractor will be required to monitor of the number of people from the SIA Study Area that are employed in construction and the number and value of contracts with businesses located in the Goondiwindi and Toowoomba LGAs in line with targets, and report on outcomes.	Appendix X: Social Impact Assessment Section 7.4.9 Section 8.3.1 Section 8.5.3 Section 8.7.3
141	141.0009	Private	Land Use and Tenure	Severance of agricultural land	Draft EIS is missing the following critical details: mitigation options for any lost agricultural land.	Provide missing information.	The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses; <ul style="list-style-type: none"> ▶ 0.02 percent of Class A land, ▶ 0.02 percent of Class B land, and ▶ 0.01 percent of IAA land (Important Agricultural Area) Within Toowoomba, the permanent disturbance footprint traverses approximately; <ul style="list-style-type: none"> ▶ 0.17 percent of Class A land, ▶ 0.22 percent of Class B land, and, ▶ 0.19 percent of IAA land Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46
141	141.0010	Private	Groundwater		Draft EIS is missing the following critical details: identification of any unregistered bores that may be impacted.	Provide missing information.	ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging (see Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey (Chapter 15: Groundwater, Table 15.7). Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users, potential make-good process and measures, and detailed in Chapter 15: Groundwater, Table 15.20. ARTC is engaged with licenced users/landowners to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/substitution make-good solutions are not required.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-7 Table 15-21
141	141.0011	Private	Outline EMP		Draft EIS is missing the following critical details: deferral of the rehabilitation and landscaping management sub-plan, deferral of a biosecurity, soil, groundwater and surface water management sub-plans, deferral of pest species management plan.	Provide missing information.	The Rehabilitation and Landscaping Management Plan, Biosecurity Management Plan, Soil Management Plan, Groundwater Management and Monitoring Program, Surface Water Management Plan and Wildlife Connectivity Plan will be further developed and refined for inclusion in the Construction Environmental Management Plan (CEMP) for the Project should the Coordinator-General decide the Project can proceed (see Chapter 24: Draft Outline Environmental Management Plan). The structure and matters of concern for these Plans and Plans are detailed in the chapter. The CEMP must be endorsed by the Environmental Monitor as being consistent with the Final Outline EMP, legislation requirements and conditions of approval, and provided to the Coordinator-General prior to the commencement of any relevant Project works.	Chapter 24: Draft Outline Environmental Management Plan
141	141.0013	Private	Editorial		Draft EIS does not meet TOR 7.5 - location of rock sample drill sites is expressed in Eastings and Northings not in latitude and longitude.	Meet the TOR requirement.	It is noted that some of the data provided in technical reports that assisted in the compilation of the EIS such as Appendix G1: Geotechnical Reports - Investigation Results are referenced in MGA 94. However, mapping throughout the EIS is Projected in Geocentric Datum of Australia 1994 (GDA94), or has been converted to GDA94.	Appendix G1: Geotechnical Reports - Investigation Results

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0015	Private	Land Use and Tenure		Draft EIS does not meet TOR 6.4, 6.8, 7.1, 7.2, and 10.9 - Draft EIS does not consider protecting strategic cropping land or priority living areas. No effort has been made to assess the project against the Regional Planning Interests Act.	Meet the TOR requirement.	<p>The Regional Planning Interests Act 2014 (Qld) is discussed in Chapter 3: Legislation and Project Approvals Process Section 3.4.26. The Project is not a resource activity or a regulated activity under the Regional Planning Interests Act 2014 (Qld) and therefore the Regional Planning Interests Act 2014 (Qld) does not apply to the Project. To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9 by the Project, which provides a total of areas of regional interest in relation to the Project footprints. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations.</p> <p>Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.2 and Table 8-51, Chapter 8: Land Use and Tenure).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.4.26</p> <p>Chapter 8: Land Use and Tenure Section 8.5.4</p> <p>Section 8.6.2</p> <p>Table 8-9</p> <p>Table 8-46</p>
141	141.0016	Private	Traffic and Transport		Draft EIS does not meet TOR 6.4 - serious consideration has not been given to avoidance of risk to public safety of level crossings or avoidance of public inconvenience due to level crossings.	Meet TOR requirement.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.6</p> <p>Section 3.7</p> <p>Appendix BT</p>
141	141.0017	Private	Land Resources		Draft EIS does not meet TOR 6.4 - serious consideration has not been given to avoidance of acid sulphate rocks.	Meet TOR requirement.	<p>From both the detailed geotechnical investigation undertaken by Macquarie Geotechnical and the detailed (1:10,000 mapping scale) soil investigation undertaken by Aurecon for the Project to map the distribution of underlying surface geology and soils developed from these materials, there was no indication of the presence of potential acid sulfate rocks that could result in generation of acid rock drainage (ARD) (see Appendix G1: Geotechnical Reports - Investigation Results and Appendix G2: Macquarie Geotechnical - Laboratory Results).</p> <p>Revised draft EIS Chapter 9: Land Resources Section 9.4.2 and Section 9.5.7 have been updated to include details of acid sulfate soils and acid rock following these geotechnical investigations.</p>	<p>Chapter 9: Land Resources Section 9.4.2</p> <p>Section 9.5.7</p> <p>Appendix G1: Geotechnical Reports - Investigation Results</p> <p>Appendix G2: Macquarie Geotechnical - Laboratory Results</p>
141	141.0018	Private	Social Impact Assessment	Cumulative impacts	Draft EIS does not meet TOR 7.3 - Macintyre Wind Farm precinct is absent from the cumulative impact assessment.	Include the Macintyre Wind Farm precinct in the cumulative impact assessment.	<p>Macintyre Windfarm was not originally identified as part of the project set for cumulative impact assessment. The wind farm will be located approximately 40 km east of the Project footprint. At this distance, cumulative impacts on e.g. the amenity of Inglewood and surrounds are not apparent.</p> <p>However, if construction coincides, there may be potential for cumulative labour draw as is described in Appendix X: Social Impact Assessment, Section 7.6 for a range of other projects.</p> <p>Appendix X: Social Impact Assessment, Section 7.6 has been revised to include Macintyre Windfarm in the cumulative Social Impact Assessment.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 7.6</p>
141	141.0019	Private	Stakeholder engagement	Baseline/background sampling	Draft EIS does not meet TOR 7.7 - Only 7 surveys were filled out from Goondiwindi shire residents to inform the social impact assessment. This is clear evidence of a lack of engagement with local communities. No remediation was provided. ARTC has been criticised by both Goondiwindi Regional Council and Toowoomba Regional Council for not listening and not taking advice. Submitter provides personal examples of engagement with ARTC in Appendix A.	Meet the TOR requirement.	<p>Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report detail the engagement carried out by ARTC to inform the social impact assessment (SIA). A range of targeted engagement tools were used, including the social impact survey. The purpose of the survey was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey didn't provide a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p> <p>Consultation informing the SIA is detailed in Appendix E: Consultation Report, Section 5.11.</p> <p>ARTC notes that ongoing engagement has continued with the submitter since the draft EIS. ARTC has continued to respond to ongoing requests for information. Additional engagement regarding noise consultation is ongoing.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.11</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
141	141.0020	Private	Surface Water	Water quantity	Draft EIS does not meet TOR 10.10(c) - Draft EIS does not identify quantities of wastewater that may be generated during construction.	Meet the TOR requirement.	<p>Wastewater generated during construction would include wastewater from accommodation facilities. A single 300-bed non-resident workforce accommodation with 250 L/person/day water usage could generate up to 0.04 ML/day of treated wastewater when at 100 per cent occupancy. Therefore two accommodation facilities could generate up to 0.08 ML/day (Chapter 5: Project Description, Section 5.4).</p> <p>The estimated construction water requirements for civil earthworks, track works and revegetation range between 0.3 to 12 ML/day as shown in Figure 5.23 (Chapter 5: Project Description, Section 5.6.24). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p> <p>Since construction water demands are much greater than the quantity of wastewater generated, it is likely that most of the time any wastewater would be used for construction and not discharges are likely.</p> <p>Where industrial or trade waste may be generated by construction activities, the resultant wastewater will be captured and, where possible, recycled. Where recycling is not feasible, the captured wastewater will be collected by a licenced contractor and taken offsite for disposal at an appropriately licenced wastewater facility (Chapter 13: Surface Water, Section 13.6)</p> <p>Predictive modelling has determined that groundwater seepage may occur from the face of deep cuts (>10 m) where groundwater is intersected; however, the assessment has concluded that seepage water, in general, will evaporate (Chapter 15: Groundwater, Section 15.6.2). Groundwater data will be refined during detailed design when additional site-specific data hydrogeological data is combined with the finalised design for model re-calibration and re-run of predictive simulations. Further details are provided in Chapter 15: Groundwater Table 15.20 (Section 15.7.2) and Chapter 13: Surface Water, Section 13.5.1.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.24</p> <p>Figure 5.23</p> <p>Chapter 13: Surface Water</p> <p>Section 13.5.1</p> <p>Section 13.6</p> <p>Chapter 15: Groundwater</p> <p>Section 15.6.2</p> <p>Section 15.7.2</p> <p>Table 15-20</p> <p>Appendix B5: Construction Water Requirements</p>
141	141.0021	Private	Land Use and Tenure		Draft EIS does not meet TOR 11.72 and 11.77 - ARTC has failed to inform the community, included impacted stakeholders, that they can enter into any compensation agreement they choose to negotiate, outside of the Land Acquisition Act.	Meet the TOR requirement	<p>TOR 11.72 Describe the potential for impact on all land uses during construction and operation of the Project. The assessment should include consideration of temporary and permanent impacts on agricultural production.</p> <p>TOR 11.77 Discuss the proposal in context of the applicable regional plans and local planning schemes</p> <p>The revised draft EIS has been updated to address the above Terms of Reference requirements.</p> <p>TOR 11.72 has been addressed in Chapter 8: Land Use and Tenure, Section 8.5 Potential Impacts. The revised draft EIS has been updated to address the above Terms of Reference requirements.</p> <p>TOR 11.72 has been addressed in Chapter 8: Land Use and Tenure, Section 8.5 Potential Impacts. As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, Where land use impacts are confirmed, individual property management measures will be developed in consultation with the landowner to reduce impacts to an acceptable and agreeable level. Management measures will include:</p> <ul style="list-style-type: none"> Individual property mitigation measures developed in consultation with landowners/occupants with respect to the development of detailed design and/or the management of construction on, or immediately adjacent to, private properties. The property mitigation measures will detail required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures, as required. Consultation with landowners will be undertaken to ensure that owners and occupiers are informed about the timing and scope of activities in their area, particularly in relation to potential impacts to access, services, or farm operational arrangements. This consultation will be ongoing throughout construction. Feedback from landowner consultation, including agreed property mitigation measures, will be incorporated into property agreements (or similar), as appropriate. <p>TOR 11.77 has been addressed in Chapter 8: Land Use and Tenure, Section 8.4.4 Local Government Planning Schemes and Section 8.5.4 Compliance Impact Assessment. Section 8.5.4 considers the consistency of the Project with the land use and planning instruments relevant to the Project footprint and Project activities, being the:</p> <ul style="list-style-type: none"> State Planning Policy (July 2017) Darling Downs Regional Plan (October 2013) ShapingSEQ (August 2017). Goondiwindi Regional Planning Scheme 2018 Toowoomba Regional Planning Scheme 2012. <p>The Project is being assessed under the Office of the Coordinator-General's Coordinated Project Framework and therefore not bound to the requirements of the Goondiwindi Regional Planning Scheme 2018 and the Toowoomba Regional Planning Scheme 2012. However, the strategic framework, zones, and overlays have been explored to provide a local understanding of the area and assessment of the Project's compatibility with the local government's plans and vision for the region.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.4.4</p> <p>Section 8.5.4</p> <p>Section 8.6.3</p>
141	141.0022	Private	Social Impact Assessment		No effort has been made to describe the impact on our farm stay campsites and bed and breakfast cabin. The train line will be clearly visible and audible from our accommodation areas. This will decrease the desirability of our hospitality enterprise, and have flow-on effects to our paddock to plate beef business, as our farm tours and overnight guests provide marketing opportunities for our beef business.	Address impacts on beef and farm stay businesses.	<p>ARTC shared the results of the noise modelling and potential mitigation strategies with those sensitive receivers predicted to exceed noise guidelines during the operation of Inland Rail.</p> <p>ARTC notes the structures on this property are more than 750 metres from the proposed level crossing and have not been identified as exceeding said guidelines.</p> <p>ARTC will continue to engage with the community about noise and noise mitigation throughout the Detailed Design, Construction Works and Operations stages of the Project.</p>	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0023	Private	Landscape and Visual Amenity		There is no vegetation screening the train line. The land falls away towards Canning Creek and as such the rail will appear elevated from the submitter's house with minimal vegetation to screen sight and sound. This will both affect the usability of the outdoor living areas and contravene the Goondwindi Council Regional Planning Scheme which encourages outlooks favouring natural landforms in rural areas.	Change the alignment so that the rail crosses Millmerran Inglewood Road 2.4 km north, or at the next comparable bend in the road. This would improve visual amenity for the submitter and their accommodation guests without decreasing amenity for other receptors.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project.</p> <ul style="list-style-type: none"> As part of the proposed mitigation strategies outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, a commitment has been included to develop a Rehabilitation and Landscaping Management Plan for the Project, as a component of the CEMP. This Plan will be developed in consultation with local governments and affected communities. This will be in addition to location and property-specific reinstatement commitments and handling complaints appropriately. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments. <p>The LVIA has assessed impacts associated with the proposed route. Whilst ARTC appreciates the potential impacts on the submitter's property, ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> Fewer farms affected mid-block Fewer farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it is located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State Forests:</p> <ul style="list-style-type: none"> Restriction of access Loss of flora and fauna Changes to bushfire management Weeds and pests Changes to drainage and minimising sediment and erosion Changes to interests on the State Forests e.g. apiaries permits, grazing leases and timber values with the forest. 	Appendix K: Landscape and Visual Impact Assessment Section 4 Section 11.2 Table 95
141	141.0024	Private	Project alignment	Road safety	To reduce landscape amenity impacts the submitter proposes an alternative alignment where the rail crosses Millmerran Inglewood Road 2.4 km north.	Submission includes Appendix B, which contains a road traffic engineer's assessment of the proposed realignment from a road safety perspective.	<p>As per Section 20.3.6 of Chapter 20: Traffic, Transport and Access, ARTC worked in consultation with the Department of Transport and Main Roads (DTMR), assessing various design alternatives for the Millmerran-Inglewood road interfaces.</p> <p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits with an alignment on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> Fewer farms affected mid-block Fewer farm operations/dwellings within 200 metres of alignment No direct impacts to feedlots Fewer residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing locations to minimise the skew angle and operational/construction impacts to Millmerran-Inglewood Road.</p> <p>ARTC will continue to work collaboratively with DTMR as the detailed design progresses regarding the proposed level crossing design solution.</p>	Chapter 20: Traffic, Transport and Access Section 20.3.6
141	141.0025	Private	Social Impact Assessment		Suggesting the lack of tourists mitigates the severity of changes is disingenuous when tourists who visit the area come specifically for the relaxed rural ambience and quiet rural outlook. There has been a surge in domestic tourism since the pandemic that is expected to be long-lived. Tourism is an emerging market in Goondwindi with plans to capitalise on this trend. The rail will negatively affect the tourism industry in Goondwindi and the region.	Address the impacts on tourism.	<p>Areas such as Kurumbul, Whetstone and Yelarbon have accommodated a rail line for many decades. Rail corridors are a common occurrence in rural areas and there appears to be no evidence that they detract from tourism visitation. Many historic small towns which offer tourism experiences are centred on rail lines.</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 8.6.2 provides that</p> <p>"When the Project's Detailed Design is confirmed, ARTC will consult with tourism-related businesses located within 10 km of the Project to ensure there is a shared understanding of how road works, changes to the road network or noise/vibration may affect tourism-related businesses. Temporary access arrangements supporting road access to tourism sites and major events will be agreed with DTMR and local Councils as is the standard approach normally adopted by linear transport projects. If consultation indicates the potential for road works or other construction activities to deter tourists, ARTC will work with local Chambers of Commerce, tourist information centres and the Goondwindi and Toowoomba Regional Councils to develop a strategy to support tourism marketing campaigns to benefit affected tourism businesses."</p>	Appendix X: Social Impact Assessment Section 8.6.2
141	141.0026	Private	Landscape and Visual Amenity		There is no visualisation from viewpoint 4. There is little point in asking for public consultation on a change that has not been illustrated. The draft EIS also states that dense remnant vegetation along the road side protects motorists from the view of the proposed rail corridor. However the picture of Inland Rail near Woodspring shows this is only the case to the south of the crossing, otherwise the rail line is clearly visible from the road and the submitter's house where the views are of dry cropping and grazing land. The Goondwindi Regional Council Planning Scheme identifies appropriate mitigation measures for this. See submission for further details.	Provide visualisation for all viewpoints.	<p>A visualisation has not been prepared for this viewpoint due to the low sensitivity of the landscape and the overall low impact anticipated in this location. Mitigation measures are still proposed irrespective of whether a visualisation has been prepared for a particular viewpoint.</p> <p>Section 4.9.1 of Appendix K: Landscape and Visual Impact Assessment states that visualisations are generated to illustrate potential visual impacts of the Project. Generation of potential visual representations are based on a range of parameters, including:</p> <ul style="list-style-type: none"> A permanent resident of a dwelling or homestead Drivers or passengers of vehicles passing through the impacted assessment area Members of the public accessing marked recreational areas An industrial or commercial worker <p>Visualisations are prepared to represent potential visual impacts. Visualisations have not been prepared for all viewpoints (including Viewpoint 4, now viewpoint 6) as visualisations are selected on the basis of those illustrating key infrastructure elements likely to be of interest to the community and/or the most sensitive viewpoints, such as from a regionally-significant scenic lookout. A key visual sensitivity of viewpoint 6 (previously viewpoint 4) include:</p> <ul style="list-style-type: none"> Receptors include workers and travellers experiencing transient views at speed along Millmerran-Inglewood Road and visitors of Bringally State Forest Lack of existing infrastructure and natural setting increases the overall sensitivity of the view This viewpoint is located on the <i>Rural Getaway</i> regional tourist drive <p>Section 8.2.6 of Appendix K: Landscape and Visual Amenity summarises that due to the distance from this viewpoint and the presence of screening vegetation, it is not anticipated that views towards the proposed non-resident workforce accommodation facility or construction laydown areas will be evident from this location, however transient views will be possible for drivers passing along Millmerran-Inglewood Road. Overall, the potential effect on viewpoint 6 during Construction Works and Operations stages of the Project are considered low.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.9.1 Section 8.2.6
141	141.0027	Private	Cultural Heritage	Non-Indigenous cultural heritage	A small cabin built around 100 years ago should be considered in the cultural heritage assessment.	If the rail line cannot be realigned to avoid the cabin, it should be relocated to the Inglewood Historical Society's museum on Albert Street in Inglewood.	As identified in Section 19.3.3 (Figure 19.1) of Chapter 19: Cultural Heritage, the heritage assessment included a comprehensive review of historical mapping and aerial imagery to identify all current or former structures within 1 km of the Project footprint. No structures were identified at the coordinates of the small cabin provided by the submitter (-28.358994, 151.142013). Further, design changes mean that this location is now 200 m from the Project footprint, and will not be impacted by the Project. If changes through detailed design cause any impacts to the cabin identified by the submitter Inland Rail will have it assessed in discussions with the landowner.	Chapter 19: Cultural Heritage Section 19.3.3 Figure 19.1
141	141.0028	Private	Air Quality	Baseline/background sampling	Draft EIS does not meet TOR 11.29 - Baseline data collected for the air quality study is not representative of the local ambient levels of pollutants. Contamination of tank water is a significant personal and business issue for the submitter.	Further background air quality monitoring should take place.	<p>The background air quality monitoring data used in the assessment is considered representative of the air environment at sensitive receptor locations along the Project corridor. Air quality monitoring data were collected from four monitoring stations which are considered to provide representative data on air quality for the study area.</p> <p>The four stations include Queensland Government's Department of Environment and Science (DES) operated stations located at Mutdapilly (90 km east of the alignment) and Springwood (135 km east of the alignment). These stations are located in areas further away from the alignment but are considered representative of the study area. The other two Inland Rail monitoring stations are closer to the alignment, located at Charlton (Inland Rail AQMS, 0.1 km south of the alignment) and Millmerran (Millmerran AQMS, 0.4 km north of the alignment). Further information on these monitoring stations is provided in Section 12.4.2 in Chapter 12: Air Quality.</p> <p>All available monitoring data has been reviewed for the Inland Rail AQMS and Millmerran AQMS stations as part of the assessment. Additional air quality monitoring has also been undertaken at Millmerran (Millmerran AQMS) for the assessment. Ten years of monitoring data have been reviewed for the Springwood and Mutdapilly stations. Further discussion of background air quality is provided in Section 12.4.2 of Chapter 12: Air Quality.</p> <p>Monitoring recommended for the Project is discussed in Section 12.7 of Chapter 12: Air Quality. Dust deposition monitoring will be conducted during the active period of construction in proximity to Commodore Mine and in urban/semi-urban areas, as discussed in Section 12.7.2 in Chapter 12: Air Quality. No further air quality monitoring (to that proposed in Section 12.7 of Chapter 12: Air Quality) is considered to be required, and the background air quality monitoring data used in the assessment is considered to be appropriate for the assessment and the study area.</p> <p>To examine the issue of tank water contamination, the air quality assessment also quantitatively investigated potential impacts to tank water quality during the operation of the Project. As noted in Section 12.5.9 of Chapter 12: Air Quality, predicted pollutant concentrations were lower than the drinking water guideline values prescribed by the Australian Drinking Water Guidelines (National Health and Medical Research Council and National Resource Management Ministerial Council 2022) for all pollutant species of concern.</p>	Chapter 12: Air Quality Section 12.4.2 Section 12.7 Section 12.7.2 Section 12.9
141	141.0039	Private	Traffic and Transport	Level crossing	Proposed level crossing adjacent to submitter's home is in appropriate. ALCAM model was inappropriately used to justify level crossing, when it should be used to prioritise the upgrade of existing level crossings. Alcam advises that their score should not be used in isolation and stakeholders should be consulted for local knowledge. Several stakeholders including regulators and councils disagree with the proposed level crossing.	Nil.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Appendix BT
141	141.0040	Private	Traffic and Transport	Level crossing	ARTC have failed to adequately address the impact of level crossings on the community by using a non-representative model of wait times. Eight minutes wait time for emergency services could be critical.	Grade separated crossings should be put in at main roads and roads where there is no alternative route for emergency services to take.	<p>An assessment of potential delays to road traffic at level crossing was undertaken as detailed in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.8 and 5.9. The modelling undertaken within this assessment provides an accurate representation of the impacts to vehicles, using traffic vehicle numbers and the calculated wait times for specific level crossings.</p> <p>All active level crossings have been analysed in the peak periods, accounting for the individually calculated wait times, in order to determine queue lengths and resultant impacts to traffic. Table 5.69 in Appendix AA: Traffic Impact Assessment provides the individual wait times for the level crossing locations along the alignment. The wait times determined for each individual level crossing were calculated based on:</p> <ul style="list-style-type: none"> Level crossing specific operating speeds (up to maximum design speed of 115 km/hr). The operating speed is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops and hence time taken for the train to accelerate from standstill. Train length Boom gate and signal operating times <p>It is acknowledged that the key focus of this submission surrounds the level crossing at Millmerran Inglewood Road and that the expected wait time at the level crossing is 101 seconds.</p> <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9 Table 5.69

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0041	Private	Traffic and Transport		Despite modelling in the EIS showing that traffic during construction would increase up to 177% during the next five years, no commitment is made to contribute to road maintenance.	ARTC should commit to repair the road as required and at project completion.	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts with Section 5.6.3 and Section 5.6.4 highlighting mitigation measures for pavement damages to state controlled and local government roads, respectively. It is noted that the submission has raised concern regarding maintenance of Millmerran Inglewood Road during construction works. The methodology for assessment and impact mitigation follows the Guide to Traffic Impact Assessment, as required by DTMR. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. The Section that discusses state controlled road highlights the significant methodology in place to maintain the roads damaged by the project, as agreed to by DTMR. This includes different measures depending on the level of impact and also varying mechanisms that are in place for road maintenance, including financial contributions to TMR to maintain that road, and also non-financial contributions made by the Project to contribute to road maintenance. In the case of Millmerran Inglewood Road, the construction assumptions made in the EIS suggest that the 5% threshold will be reached in the early years of construction and as result the road will be maintained using the aforementioned measures.	Appendix AA: Traffic Impact Assessment Section 5.6 Section 5.6.3 Section 5.6.4
141	141.0042	Private	Traffic and Transport	Level crossing	Disputes the claim in the EIS that the project has been aligned to limit road/rail interfaces, ARTC admitted that the only reason to cross Millmerran Road adjacent to the submitter's house is to save time, effort and money resuming land from the State Forestry Dept.	Provide the rationale for crossing Millmerran Road three times. Confirm why the southern Millmerran Inglewood Road crossing is referred to as a road/rail bridge. Limit crossing Millmerran Inglewood Road to one grade separated crossing. Grade separate any road/rail interface where alternative grade sep crossings are not available for emergency services.	The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road: <ul style="list-style-type: none"> ▶ Fewest farms affected mid-block ▶ Fewest farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewest residences within 200 metres. To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests': <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and since response times during construction and operation, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations. ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.	Appendix AA: Traffic Impact Assessment Section 3.7
141	141.0043	Private	Groundwater	Private groundwater bore/s	A desktop audit was undertaken for bores, but there could potentially be a number of unregistered stock and domestic bores that were drilled prior to the requirement for registration.	While not licenced, these bores are still legal and efforts need to be made to identify and protect them.	ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to growth related impacts) to allow for general construction, lay down yards, access tracks, staging (see Chapter 15: Groundwater, Section 15.5.4), Real properties (lot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey (Chapter 15: Groundwater, Table 15.7). Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users, potential make-good process and measures, and detailed in Chapter 15: Groundwater, Table 15.20. ARTC is engaged with licenced users/landowners to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/substitution make-good solutions are not required.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-7 Table 15-0
141	141.0044	Private	Project scope		Laydown area B2G-LDN073. 0 is designated for Millmerran-Inglewood Road rail bridge %231. The road rail bridge did not make it to the reference design. Presume this laydown is no longer required.	Confirm if laydown is still required and amend EIS designs accordingly.	As described in Section 5.5.3 of Chapter 5: Project Description of the revised draft EIS and Section 5.6.7 of the revised draft EIS Chapter 5: Project Description , several laydown areas have been identified along the length of the alignment and positioned to avoid or minimise potential impacts to environmental and social receptors. This includes laydown area B2G-LDN073. 0 which will support construction of Pariagara Creek Rail Bridge at Chainage 67.2 kilometres (km) and Cattle Creek Rail Bridge at Chainage 88.2 km.	Chapter 5: Project Description Section 5.5.3 Section 5.6.7
141	141.0045	Private	Surface Water	Erosion	Laydown area B2G-LDN074. 0 is located adjacent to Canning Creek where it borders on the submitter's property. It is a sensitive riparian environment. A laydown area in this location will cause erosion issues. Rehabilitation at the end of construction will be difficult. A sediment basin in this location will be unable to be decommissioned.	Make other arrangements for this laydown area.	Temporary construction facilities and activities will be located with the objective of achieving a setback distance of 30 metres from watercourses, where possible, without the need for further controls. In some instances, a setback of 30 metres cannot reasonably be achieved, i. e. laydown areas in support of bridge construction. In such instances, a setback distance of no less than 10 m will be achieved, with implementation of additional controls to preserve riparian and aquatic values, e.g. erosion and sediment controls. This commitment is provided in of Chapter 24: Draft Outline Environmental Management Plan. A Project-specific Rehabilitation and Landscaping Management Plan will be developed prior to the completion of construction for the management of land that is not required for the Operations stage. As stated in Sections 5.7 and 5.8 of Chapter 5: Project Description, monitoring will occur through Commissioning stage and into Operations stage, to ensure that the Project landscaping continues to be successful. Additional maintenance or intervention works may be required if monitoring demonstrates that landscape and rehabilitation completion criteria established in the Rehabilitation and Landscaping Plan are not being achieved.	Chapter 5: Project Description Section 5.7 Section 5.8 Chapter 24: Draft Outline Environmental Management Plan
141	141.0046	Private	Surface Water	Flood immunity	The drainage structure at chainage 75 (near Laydown area B2G-LDN074. 0) was full of water in the moderate (6m) flood. In a major flood with 3 m more would have more significant impacts.	Make other arrangements for this laydown area.	As detailed within Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, where possible, site selection of temporary construction facilities was undertaken to avoid areas impacted by the 1% AEP regional flooding extent. Not all proposed facilities were able to achieve this immunity as identified above due to the constrained nature of the Project footprint. As such some control measures will be required to be adopted during the Construction Works stage to minimise impacts on the existing flooding regime and any overland flow paths due to construction activities. The following control measures are proposed: <ul style="list-style-type: none"> ▶ Maintain existing flow paths and avoid direct impact on existing drainage lines. ▶ Siting of facilities on the fringes of regional floodplains, where applicable. ▶ Avoidance of raised construction pads in areas impacted by flooding. ▶ Undertake modelling of more frequent events (50% AEP and more frequent) to determine the impacts associated with the temporary works. As required, undertake secondary approvals processes for temporary works/facilities that may impact flood regimes and outside the approval processes as part of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20
141	141.0047	Private	Land Use and Tenure		The project is incompatible with the GRC planning scheme. It traverses 60 km of strategic cropping land along the Millmerran Inglewood Road, does not support Yelarbon being a vibrant town centre and is likely to erode 'black soils'.	Nil.	ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses; <ul style="list-style-type: none"> ▶ 0.02 per cent of Class A land, ▶ 0.02 per cent of Class B land, and ▶ 0.01 per cent of IAA land (Important Agricultural Area) Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. The Project is being assessed under the Office of the Coordinator-General's Coordinated Project Framework and therefore not bound to the requirements of the Goondiwindi Regional Planning Scheme 2018. However, the strategic framework, zones, and overlays have been explored to provide a local understanding of the area and assessment of the Project's compatibility with the local government's plans and vision for the region. This is further discussed in revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.4 Compliance Assessment. Of the several overlays contained within the Goondiwindi Regional Planning Scheme, the most pertinent to this Project is the Natural Resources Overlay which is aimed to protect natural resources for current and emerging generations. This overlay applies to key resource areas and agricultural land classifications class A and B as identified in the State Planning Policy (SPP), and water resources catchment areas identified in the schemes overlay map. The Border to Gowrie Section of the Inland Rail does not intersect with either the water resource catchment, nor the key resource areas, however it does traverse through land categorised as class A and B. The implications of this intersection have been identified and potential adverse impacts have been minimised and/or mitigated to prevent land degradation and stormwater run-off. ARTC has committed to continued engagement with the Yelarbon community and Goondiwindi Regional Council to plan and implement community projects to offset impacts on the amenity and character of Yelarbon. A detailed soil investigation (refer to Section 3.2.2, Section 4.5 and Section 5.0 of Appendix J: Soil Assessment Report, Appendix H) has also been undertaken along the Border to Gowrie rail alignment disturbance footprint to further understand the soil properties and refine existing soil mapping. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. Chapter 9: Land Resources, Section 9.3.2: Detailed soil investigation states that "Building on existing information from geotechnical and soil investigations, a detailed soil investigation was undertaken comprising field and laboratory testing to enable the identification and mapping of soil units within the Project footprint at an approximate 1:10,000 scale within the proposed Project footprint to understand soil properties associated with the extent of Project soils. (Appendix J: Soil Assessment Report). The outcomes of these detailed soil investigations have informed baseline conditions, impact assessment and soil-specific management approaches and mitigation measures for the project including structure design, erosion control measures, soil treatment and site rehabilitation planning." (Appendix AB: Earthworks Strategy and Draft Soil Management Plan).	Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.2 Table 8-46 Chapter 9: Land Resources Section 9.3.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Appendix J: Soil Assessment Report Section 3.2.2 Section 4.5 Section 5.0
141	141.0048	Private	Project alignment		ARTC is not forthcoming about the approach to route selection. The EIS refers to reports not included in the EIS and not made available to the public when requested. One of the reports acquired by the submitter through FOI identifies that a route option was discounted due to strong community opposition.	Nil.	In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development. The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route. In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie (Chapter 2: Project Rationale, Section 2.9.3). The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3). Following completion of the Corridor Options Report for the Project in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through the Project phase 2 feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide wide study area is referenced within Chapter 2: Project Rationale, Section 2.8 and 2.9 of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area. Detailed discussion on the contents of FOI 18-053-doc12 is not within the scope of the EIS.	Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0049	Private	Stakeholder engagement		ARTC is seeing threats where it should be seeing opportunities.	CG insist ARTC return to the beginning of route selection process, engage a competent Social Impact Assessment consultant and move forward with meaningful community engagement, faithfully following their own stated procedures, to deliver a renewed draft impact statement that is internally consistent.	Stakeholders were engaged to inform the route selection for Inland Rail commenced in 2006 and a summary of this early engagement is provided in the revised draft EIS in Appendix E: Consultation Report, Section 3. In 2017, the Minister for Infrastructure and Regional Development announced the preferred two-km wide impact assessment area for the Project. Following this announcement, ARTC increased its program of briefings and information sessions along the alignment. These included meetings with councils, federal and state MPs, community consultation via public meetings and drop-in sessions, and exhibitions at agricultural shows, together with individual meetings with potentially affected landowners. During this period, ARTC also met with landowners potentially, or likely to be, directly impacted by Inland Rail on more than 2,500 occasions with 525 separate face-to-face consultations undertaken during the last quarter of 2018. Between January 2016 and November 2018, ARTC convened or addressed public meetings and information sessions attended by more than 7,000 people. Further information on the stakeholder engagement supporting route selection and alignment planning can be found in: Route history of Inland Rail 2006-2021 - Inland Rail (available at artc.com.au) In January 2022, following consideration of the draft EIS and stakeholder submissions, the OCG notified ARTC that additional information was required. ARTC has completed additional investigations, assessments, and stakeholder engagement to inform a revised draft EIS and address issues raised in the submissions. This engagement process also included incorporating design refinements and additional mitigation measures into the reference design in response to feedback received from directly and indirectly impacted stakeholders, resulting in several reference design changes and mitigation measures. Some examples of key design changes and mitigation measures in response to stakeholder feedback can be found in Chapter 6: Stakeholder Engagement, Section 6.6. ARTC will comply with the conditions set by the Coordinator-General.	Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 3
142	142.0001	Private	Surface Water	Modelling	The flooding and hydrology model is inadequate and does not reflect the lived experience of the landowners in the area. There is no 1% AEP hydraulic results between chainage 68.75 and 87.19 in the draft EIS. Omitting hydrology results where the train traverses within 200 m of the creek is irresponsible.	Update the EIS to meet the terms of reference 11.64, 11.36 and 11.69	Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendix T1 and T2: Hydrology and Flooding Technical Report - Volumes I and II of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS. Ch 68.75 to Ch 87.19 include local catchment culverts and bridges that are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Mapping of local catchment flood results at these locations has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online Digital Platform. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 18 Appendix B Appendix T2: Hydrology and Flooding Technical Report - Volume 2
142	142.0002	Private	Surface Water	Increase in flows	There are 11 culverts or bridges between chainage 73.33 and 74.97 to allow for water flow. There is an existing culvert across Millmerran Inglewood Road at this approximate chainage, where water flow has led to a very large scour. ARTC acknowledges that scour mitigation is necessary at 9 of 11 proposed sites but not that any hydrology modelling is required.	Update the EIS to meet the terms of reference 11.64, 11.36 and 11.69	Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2) of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS. As pointed out by the submitter the local catchment drainage structures allowed for in the Reference Design are described in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Hydraulic results and impact assessment outcomes for the local catchment drainage structures are presented in Section 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS. Scour and erosion protection measures are outlined in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS, and will be confirmed during Detailed Design when detailed soil mapping becomes available.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 18 Appendix B Appendix T2: Hydrology and Flooding Technical Report - Volume 2
142	142.0003	Private	Surface Water	Scour protection	The Austroads Guide to Road Design part 5B lists allowable water velocities over stiff and hard clays as 1.0-2.0 m/s. ARTC has chosen to use the extreme fast end of this bracket (2 m/s) as their trigger point for sites requiring mitigation.	Update the EIS and project design to include scour mitigation downstream of drains, culverts and bridges where peak water velocity will exceed a more conservative 1.2 m/s	Scour protection requirements for culverts during the revised reference design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent project footprint, based on the revised reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Details on flooding, hydrology and use of culverts within the Project Area are outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1
142	142.0004	Private	Surface Water	Modelling	ARTC has not provided enough detail for residents of the CG to make meaningful conclusions about flood sensitivities.	Update the EIS to meet the terms of reference 11.64, 11.36 and 11.69	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 1.4. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2
142	142.0005	Private	Surface Water	Increase in flows	Omitting Canning Creek catchment between Pariagara Creek and Cattle Creek fails to take into consideration the impact of flooding at private properties along Millmerran Road. The driveway used by the submitter crosses Canning Creek and it has not been taken into consideration in the EIS. After every flood event the crossing needs to be rebuilt due to erosion.	Update the EIS to meet the terms of reference 11.64, 11.36 and 11.69	The Canning Creek catchment between Pariagara Creek and Cattle Creek has not been omitted from the assessment. Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS.	Appendix T1: Flooding and Hydrology Technical Report - Volume 1 Section 18 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
142	142.0006	Private	Groundwater	Private groundwater bore/s	Only a desktop audit has been done for bores. DES guidelines provide best practice method for assessing groundwater impacts, including considering both registered and unregistered bores in and adjacent to the project footprint. EIS does not state an intention to contact property managers adjacent to the project footprint unless their property is being resumed or their bore decommissioned.	nil.	ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging (see Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/plan) to be intersected by the Project footprint were targeted and landowners were provided an opportunity to be identified via this survey (Chapter 15: Groundwater, Table 15.7). Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users, potential make-good process and measures, and detailed in Chapter 15: Groundwater, Table 15.20. ARTC is engaged with licenced users/landowners to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/substitution make-good solutions are not required.	Chapter 15: Groundwater Section 15.5.4 Table 15.7.4 Table 15-7 Table 15-0
142	142.0007	Private	Groundwater		The current alignment will not be able to avoid unweathered areas of the Kumbailla Beds and Walloon Coal Measures, which will potentially form leachate that can contaminate aquifers. ARTC has no intention of avoiding acid contamination of groundwater, instead choosing to mitigate/manage the risk.	Cleaning up contaminated groundwater is costly and technically complex. ARTC should prevent groundwater contamination wherever possible.	The preferred alignment for the proposed rail corridor was identified based on an analysis of multiple corridor options, with the final preferred alignment presenting the strongest benefits for industry and the community in general, while minimising impacts to the natural and rural landscape. The location of the alignment was selected in part as it is located within the existing Southern Freight Rail Corridor, gazetted as a future rail corridor in 2010. The Project has been developed to utilise the existing rail corridor protection and minimise land severance and impacts to natural and rural landscapes to the greatest extent possible. However, some excavations (cuts) will be required to achieve suitable landform within the Border to Gowrie section. ARTC have committed to undertaking site inspections prior to the construction of cuts, including visual examination of surface outcrops for sulfide minerals or evidence of sulfide mineralisation. The outcomes and information from these inspections will be utilised to inform the management of potential acid rock drainage (ARD) from cuttings prior to Project works. Cuts are expected to be primarily into the weathered to extremely weathered units portions of the Kumbailla Beds and Walloon Coal Measures (WCM); therefore, the risk for ARD could be naturally mitigated as sulphides minerals may have already been oxidised. Unweathered areas of the Kumbailla Beds and WCM have been avoided where possible. Potential for acid rock occurrence along the Project alignment is discussed in Chapter 9, Section 9.4.2 and is evidenced throughout Appendix G1: Geotechnical Reports - Investigation Results. Potential impacts relating to Acid rock are presented in Chapter 9: Land Resources, Section 9.5.7.	Chapter 9: Land Resources Section 9.4.2 Section 9.5.7
142	142.0008	Private	Groundwater	Baseline/background sampling	EIS groundwater monitoring program is incomplete. It does not include monitoring bores between chainage 71 and 89 of the greenfield Section of track. The presentation of data in the EIS is also problematic - location of exploratory augers is given only in Eastings and Northings and no map is provided to indicate locations.	Update Figure 4.8 in Appendix R with highly contrasting colours and present data in accordance with the TOR. ARTC to collect rock samples adjacent to cuttings to inform risk of acid rock drainage and contamination of groundwater. consult with all landowners within 1 km of the alignment to confirm unregistered stock and domestic bore drill samples	Figure 4.8a-d of Appendix U: Groundwater Technical Report presents the mapped surface geology with the design elements of the Project. Geotechnical investigations are ongoing to refine the understanding of cut material to be intersected. The groundwater monitoring bores installed as part of the feasibility geotechnical/hydrological investigations were to target design elements with potential to impact underlying groundwater, such as deep cuts and piling works. No design elements were identified between chainages 71 km and 89 km as part of the feasibility design. The alignment and reference design has since changed as a result of the value engineering process and the existing Project groundwater monitoring bore network is being reviewed against the current reference design. Where design elements with potential to impact groundwater are identified, review of targeted bores will be completed and installation of replacement or new groundwater monitoring bores will be undertaken where necessary. Revised draft EIS Chapter 15: Groundwater, Figure 15.2 presents the registered and Project (site-investigation) bores along the alignment. ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified. Revised draft EIS Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users. ARTC is engaged with groundwater users/landowners to determine an appropriate make-good strategy on a case-by-case basis. All figures have been reviewed and updated where necessary as part of the revised draft EIS to reflect the current understanding of the presence of groundwater bores and to conform with the EIS TOR (see Appendix A2: Terms of Reference Cross Reference Table). Geotechnical investigations are ongoing and will reflect design changes as part of the value engineering process.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Figure 15.2 Appendix U: Groundwater Technical Report Figure 4.8a-d Appendix A2: Terms of Reference Cross Reference Table
142	142.0009	Private	Social Impact Assessment	Directly impacted landowner	Draft EIS refuses to adequately address access issues that significantly affect farming enterprises. ARTC informed submitter that unless farms have a gazetted access onto roads that occupational crossings will not be built, regardless of the current or intended use of the land.	ARTC is responsible for the price of legal counsel for landowners requiring occupational crossings. This requirement must be clearly communicated to landowners.	As outlined in Appendix X: Social Impact Assessment, Section 7.1.7, "Design and layout of occupational crossing solutions will be determined based on specific property requirements such as stock movements and vehicle access requirements and alternative access arrangements, safety standards such as criteria for minimum sight distances for trains and vehicles, and rail design and landform. Typical treatments include underpasses (subject to topography), level crossings and diversion to adjacent public road/public road crossings". ARTC has consulted with impacted landowners to obtain an understanding of property access requirements and to present potential private access solutions based on the reference design. Each property solution will be designed on a case-by-case basis through ongoing consultation with landowners and further design refinement.	Appendix X: Social Impact Assessment Section 7.1.7
142	142.0010	Private	Land Use and Tenure	Severance of agricultural land	EIS does not meaningfully address severance, dissection and fragmentation issues and does not make efforts to avoid these impacts. No minimum size for a property is given where taking any of the land means the proponent must take all of the land.	A minimum size could be declared such that when dissection of a rural block makes any remaining section less than 50 acres, ARTC is required to offer to compensate for the loss of the entire dissected section, while only taking possession of the necessary 40 m corridor.	As stated in Chapter 8: Land Use and Tenure, Section 8.6, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties. Where disruption to water supply occurs, crossing points will be provided or the relocation of dams or irrigation systems will be undertaken in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.2 of the revised draft EIS for further detail. ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6 Section 8.6.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
142	142.0011	Private	Traffic and Transport	Level crossing	The EIS calculates wait times at level crossings using the best case scenario of 1800 m-long trains travelling at 115 km/h. Wait times could be double this for 3600 m-long trains and even longer if non-express services travel at a maximum speed of 80 km/h.	Update the EIS with both representative and worst case scenario modelling of wait times, and allow the community to comment on the actual inconvenience and projected increase in response time for emergency services.	<p>Section 5.9.3 of Appendix AA: Traffic Impact Assessment discusses analysis assumptions a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4). This Section also details on how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of:</p> <ul style="list-style-type: none"> The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate The time it takes the train to cross the level crossing Design vehicle consisting of a B-double for input parameters. <p>Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows:</p> <ul style="list-style-type: none"> Train clearance times were calculated based on an assumed maximum train speed of 115 km/h Calculation of the freight train acceleration rate Distance of the level crossing from passing loops Distance required to accelerate to maximum turnout speed (50 km/h) Distance travelled while at constant maximum turnout speed Distance required to accelerate to maximum speed after whole train has passed turnout Total distance required to reach maximum speed for train starting from turnout Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). The wait times determined for each individual level crossing were calculated based on: Level crossing specific operating speeds which is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops Train length Summarise traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons, as per Section 2.4). A sensitivity test (to represent a conservative upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. <p>Typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished.</p>	Appendix AA: Traffic Impact Assessment Section 5.9.1 Section 5.9.3 Appendix BT
142	142.0012	Private	Traffic and Transport	Level crossing	EIS uses the outdated Queensland Level Crossing Safety Strategy 2012-2021. The updated policy supports initiatives to "proactively promote the 'new level crossings' policy in Queensland, where appropriate".	Greatly reduce the number of level crossings.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>Further, in June 2020 ONRSR finalised an audit of the Inland Rail Road-Rail Crossing Strategy. The audit recognised a consistent, systematic and comprehensive process for the assessment of level crossings applied to determine adequate treatments, noting that the approach ensures level crossing safety risks are eliminated or minimised, so far as is reasonably practicable in accordance with Rail Safety National Law.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT
142	142.0013	Private	Traffic and Transport	Level crossing	The national rail safety regulator released a paper about passive level crossings which found that sight lines are rarely maintained - which is a road safety issue.	Greatly reduce the number of level crossings. Remove the level crossing at chainage 73, which is a 100 km/h zone with poor visibility in both directions.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>Further, in June 2020 ONRSR finalised an audit of the Inland Rail Road-Rail Crossing Strategy. The audit recognised a consistent, systematic and comprehensive process for the assessment of level crossings applied to determine adequate treatments, noting that the approach ensures level crossing safety risks are eliminated or minimised, so far as is reasonably practicable in accordance with Rail Safety National Law.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9
142	142.0016	Private	Noise and Vibration	Operational rail noise	ARTC has not specified maximum noise emissions targets for rolling stock and has done all their noise modelling based on smooth rails. Reverse curves (S-curves) increase rail noise - including before the level crossing proposed near the Woodspring farm.	Move the level crossing to avoid the S-curves, or commit to a rail roughness mitigation program. ARTC to routinely report on rail roughness and noise impacts at S-curve locations. Insist that wayside monitoring systems (see submission for list) be present and enforce a penalty for operators whose rolling stock does not meet pre-set limits or Apply a noise-differentiated track access charge.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Correction factors were applied to the noise model to account for impulsive noise as the train passes over turnouts, level crossings and bridges. These correction factors were applied as per the DTMR Interim Guideline (Table 4.1.2). The DTMR assessment criteria includes a Single Event Maximum to support the review of mitigation measures to address impacts such as sleep disturbance.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17
142	142.0018	Private	Project alignment		The EIS and community consultation fail to provide clarity around route selection, with variable weighting given to different criteria to suit ARTC's point-and-predict model. Social impacts are not really considered. Route selection Section of the EIS references reports that are not publicly available. ARTC chose not to release a report as they do not actually value community input or transparent communication.	Nil.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres to 1000 metre wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5% (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5% (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement: 12.5% Technical viability: 17% Safety: 16.5% Constructability: 12.5% Operations: 16.5%. <p>The report referred to was part of the normal process of developing a concept alignment, and as such these reports have not been made publicly available as they are internal working documents. The document was referenced purely to demonstrate that work had been undertaken during 2015 and 2016 to refine the 2015 Inland Rail Implementation Group (IRIG) route into the alignment that became known as the Base Case (Modified) route. The AECOM Report referenced assessed a number of potential options for improving on the 2015 IRIG alignment and resulted in the development of the Base Case (Modified) route. This was one of the four route options assessed by AECOM and Aurecon under the auspices of the Project Reference Group and that reported to ARTC and the Australian Government in the Corridor Options Report (April 2017). The Australian Government announced in September 2017 that it had determined the Base Case (Modified) - via Wellcamp-Charlton as the route for Inland Rail in the Border to Gowrie Section (Chapter 2: Project Rationale, Section 2.9.3). Since late 2017 the AECOM Concept Assessment Report referenced in the submission has had no direct relevance to the further route refinement work undertaken by ARTC.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
142	142.0019	Private	Surface Water	Baseline/background sampling	Ecological survey and surface water sampling is insufficient. Studies took place during on the of the worst droughts in history.	Studies should be repeated four weeks after the floods, which is more representative of the usual ecosystem.	<p>The revised draft EIS has been updated to include an additional 12 months of surface water data collected from December 2020 to November 2021, in addition to the data collected from June 2018 to May 2019. The data has been re-evaluated and presented in the revised draft EIS in Appendix S: Surface Water Quality Technical Report, Sections 3.1.2 and 5.2, and Chapter 13: Surface Water, Section 13.3.3 and 13.4.5.</p> <p>Additionally, more detailed ecological field surveys have been conducted since the release of the draft EIS. The results of these additional surveys have been presented within Chapter 11 and Appendix L of the revised draft EIS.</p>	Chapter 13: Surface Water Section 13.3.3 Section 13.4.5 Appendix S: Surface Water Quality Technical Report Section 3.1.2 Section 5.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
142	142.0020	Private	Landscape and Visual Amenity		Project impacts on visual amenity are understated by selectively choosing sites for viewpoints and providing on 'before' photos for some viewpoints. Submission outlines specific examples including the viewpoint at Yelarbon.	Provide visualisations at all viewpoints as well as a solid plan to address visual amenity in Yelarbon that takes into account the current beautification works, silo art, viewing area and park and rest top and re-release the amended EIS for public comment.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. The rationale for the selection of viewpoints to provide visualisations for has been provided in Section 4.9 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. Visualisations have been selected on the basis of those illustrating key infrastructure elements likely to be of interest to the community and/or the most sensitive viewpoints, such as from regionally-significant scenic lookouts. Based on community feedback received through the EIS process, several additional viewpoints have been provided as part of the LVIA and were included in the revised draft EIS, including Viewpoint 22 (previously 17b) showing an alternative view from Pittsworth and Viewpoint 20 (previously 16) which provides an aerial view over Brookstead. An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area (which had not been constructed at the time of the original field assessment). As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Impact Assessment, Section 8.2.4 and Section 9.1.4. In addition, an artists impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers. ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos were affected by noise walls, ARTC would facilitate provision of mitigation measures e.g. a complementary mural on the noise wall, in consultation with the Yelarbon community and Goondiwindi Shire Council.	Appendix K: Landscape and Visual Impact Assessment Section 4 Section 4.9 Section 8.2.4 Section 9.1.4
142	142.0021	Private	Editorial		EIS contains inconsistencies. For example a road rail interface at Millmerran Inglewood Road is referred to as a road-rail bridge in an Appendix but is referred to as an active level crossing in other locations in the EIS. Also Millmerran-Inglewood Rail Bridge 231 is identified in the visual amenity impact assessment and traffic impact assessment but not the operational noise assessment.	Ensure inconsistencies are addressed in the draft EIS re-released for public comment.	Substantial revisions have been made to the revised draft EIS, capturing the outcomes of on-going investigations and ensuring a document that is more consistent, accurate and appropriate. The Project is proposed to interface with Millmerran-Inglewood Road at three locations across the Project alignment, as described in Table 5.15 of Chapter 5: Project Description. The Proposed interfaces include: <ul style="list-style-type: none"> Active Level Crossing at Chainage 73. 01 km Grade Separation rail-over-road at Chainage 115.52 km Grade Separation rail-over-road at Chainage 127. 00 km Table 2 and Table 3 of Appendix W: Noise and Vibration Assessment – Railway Operations summarises all interfaces incorporated into the revised reference design for the Project, including the three Millmerran-Inglewood Road interfaces.	Chapter 5: Project Description Table 5-15 Appendix W: Noise and Vibration Assessment - Railway Operations Table 2 Table 3
142	142.0022	Private	Surface Water	Erosion	Appendix P states there are two sediment basins at chainage 73, which are supposedly described in Volume 3. There is no volume 3 on the USB provided to the submitter. The sediment basins can be considered 'water storage' under the RPI regulations, which is inconsistent with Chapter 3 that states the RPI Act is only applicable to extractive industries.	Ensure inconsistencies are addressed in the draft EIS re-released for public comment. Acceptance of the EIS be contingent on ARTC applying for an approval under the RPI Act 2014.	Sediment basin 8 (located at chainage 73.6 km) is no longer part of the Project. Sediment Basins have been updated to reflect the revised draft EIS proposed Project requirements (see Table 1.3, Appendix S: Surface Water Quality Technical Report). The locations of sediment basins are shown in working plans and longitudinal sections presented in Appendix B1: Design Drawings of the revised draft EIS. Water storage (dam) is only regarded as a regulated activity under the <i>Regional Interests Planning Act 2014</i> if located in a strategic environmental area (Part 4, Section 11 Regional Planning Interests Regulation 2014). The Project is not located in a strategic environmental area, therefore the RPI Act does not apply to sediment basins established for the Project.	Appendix B1: Design Drawings Appendix S: Surface Water Quality Technical Report Table 1.3
142	142.0023	Private	Land Use and Tenure	Directly impacted landowner	Every property and business owner is left to negotiate for themselves when it comes to compensating for severance and dissection of properties and businesses. There is a real possibility of land owners being under compensated.	Guidelines should be released publicly as a baseline from which negotiations can begin.	Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld). Chapter 8: Land Use and Tenure, Section 8.6.2 states that assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance. Chapter 17: Social costs attributable to Compensation for disturbance caused by the resumption may include: <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. Chapter 8: Land Use and Tenure, Section 8.6.2 states that during construction, land will be acquired temporarily in accordance with the Acquisition of Land Act 1967 (Qld). Purchasing or leasing arrangements for these properties will be investigated in consultation with relevant landowners. Chapter 8: Land Use and Tenure, Section 8.5.4-states that ongoing consultation with affected landowners, and the wider communities, will be undertaken in accordance with ARTC's consultation plan, as discussed in Chapter 6: Stakeholder Engagement. Negotiation of land acquisition will be undertaken in accordance with the Acquisition of Land Act 1967 (Qld), which includes the process for the resumption of land by a constructing authority (Department of Transport and Main Roads) and compensation. Chapter 17: Social, also outlines mitigation measures within the Social Impact Management Plan in relation to consultation with directly affected landowners.	Chapter 6: Stakeholder Engagement Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.2 Chapter 17: Social
142	142.0024	Private	Project scope		Fencing standards in the draft EIS are inadequate and do not address the needs of landowners or wildlife. Fencing used for Narramine to Narrabri suggested 4 strand barb wire, which is inappropriate as it will not contain sheep, goats, bulls or free range pigs.	Mandate like-for-like fencing standard and where no fence existed prior to the project, require fencing standards be clear and specify with more detail the type of fencing and include details of strainers and creek crossings. If no fencing is in place, ARTC needs to describe how public, livestock and fauna access will be restricted to the rail corridor.	ARTC note the feedback regarding the fencing standards. Additional information is included in the revised draft EIS. Fencing standards and the approach to fencing, to a Reference Design Level, are provided in Chapter 5: Project Description, Section 5.4.12. ARTC will implement its Fencing Strategy on the Project. Wire Netting or Prefabricated Field Fencing Fabric (specifically 7/90/30 tight cross-over knot mesh) will be used for all grazing properties along the alignment unless an alternative standard is mutually agreed with the landowner.	Chapter 5: Project Description Section 5.4.12
142	142.0025	Private	Traffic and Transport	Mitigation measures	EIS says ARTC will come to an agreement with local councils about road maintenance, it fails to consider the likely dearth of available workers with appropriate experience.	Condition the project so that roads used for construction are repaired to a standard assessed by the appropriate council as 'not in a worse condition than pre-project' six months after completion of construction.	Once the construction routes have been confirmed at the next stage of the project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include: <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. The agreed arrangements to deal with impacted pavements as a result of construction will be contained in the Third Party Agreement that will exist between the Road Manager and ARTC.	Appendix AA: Traffic Impact Assessment Section 6.2
142	142.0026	Private	Social Impact Assessment		ARTC has not prepared a social impact assessment that documents community and stakeholder engagement, workforce management, housing and accommodation, local business and industry procurement, and health and community wellbeing.	A system for the follow-up of social impacts should be required prior to approval of the draft EIS. The SIMP could include second yearly monitoring and reporting to the Minister of Transport for compliance with noise, vibration, air quality, complaints register and traffic impact and safety, as well as condition of roads use for construction. ARTC needs to be required to remediate any instance of exceeding projected impacts.	Appendix X: Social Impact Assessment, Section 8 includes a Social Impact Management Plan (SIMP) which addresses these five areas in detail. The SIMP also includes detailed monitoring and reporting provisions. SIMP monitoring and reporting commitments are detailed in Appendix X: Social Impact Assessment, Section 8.7. Environmental changes which could result in social impacts (e.g. noise, air quality, traffic) are addressed in detail in other sections of the revised draft EIS.	Appendix X: Social Impact Assessment Section 8 Section 8.7
142	142.0027	Private	Stakeholder engagement		ARTC has held community information sessions masquerading as community engagement sessions. Community concerns have been noted but never addressed. No avoidance or mitigation measures have been forthcoming and the community is highly disillusioned.	A system for the follow-up of social impacts should be required prior to approval of the draft EIS.	ARTC has held numerous community information sessions in the SIA study area. As detailed in Chapter 6: Stakeholder Engagement, Section 6.2, "inform" is one level of the engagement spectrum. As a tool, community information sessions fall into the "consult" level of the spectrum as ARTC acknowledges community concerns and feedback and has provided feedback on how these have been considered in the design process. Examples of areas where consultation has resulted in changes to reference design or mitigation measures can be found in Chapter 6: Stakeholder Engagement, Section 6.6. Appendix X: Social Impact Assessment notes that a detailed Social Impact Management Plan (SIMP) will be developed, including the following actions plans: community and stakeholder engagement, workforce management, housing and accommodation health and community wellbeing, local business and industry content.	Chapter 6: Stakeholder Engagement Section 6.2 Section 6.6 Appendix X: Social Impact Assessment
142	142.0028	Private	Social Impact Assessment	Workforce and employment	EIS addressed providing advice, training and capacity building of local businesses but employment goals for traditionally underrepresented groups, such as women, is not addressed. The EIS alludes to goals for local and Indigenous employees but the percentages required are apparently commercial-in-confidence and the decision of the top tier contractor.	Condition the project so that goals for Indigenous, local and female representation in the workforce may not be commercial-in-confidence and must be greater than 10 ongoing full-time jobs during operations, 10% of work hours for residents from within 125 km of the project, 15% of work hours for apprentices, trainees and on-the-job training, 10% of work hours to female employees, 2% of work hours to Indigenous employees and \$500 million in contracts with local businesses. Compliance must be disclosed in reporting.	As noted in Appendix X: Social Impact Assessment, Section 7.2.2, the Project will underpin its planning with the minimum participation targets set by related Commonwealth and Queensland policy. The Project will drive outcomes toward aspirational or incentivised targets with Contractors to exceed these minimum benchmarks. The Project's contractual negotiations will remain commercial in confidence. Where policy benchmarks do not exist, minimum targets have been set with consideration for baseline labour and supply chain conditions, likely cumulative demand and competition for roles or supply at the time of project construction, and with respect for input from related key stakeholder consultation. The Project is committed to a minimum local employment target of 15% (i.e. employment of residents of the SIA study area), which ensures that Project employment targets are enabling local employment choice, while managing the potential for regulated Project employment targets to accelerate or exacerbate local labour draw, which is a serious concern raised by both GRC and TRC. The Project's aspiration is for its Contractors to exceed this employment target should local labour capacity support this, without significant adverse impact to other local industry or supply chains, at the time of Project delivery (Appendix X: Social Impact Assessment, Section 7.2.2). During its Construction Works stage, the Project will also align with the Queensland Government commitment to achieving an 11% female participation target, and aspires to the Department of Employment, Small Business and Training's recently set 15% target for women in frontline construction roles (Queensland Government.2022). Updated analysis of the likely availability of construction labour from the SIA study area will be required prior to construction, to enable the refinement of local and regional recruitment and training strategies. Strategies for recruitment and training of personnel from the Goondiwindi and Toowoomba LGAs and Targets (numbers and percentages) for employment by location (i.e. SIA study area/LGA) and demographic (e.g. participation by people under 25 years and Indigenous people) will form a key part of the selection and contracting process. Appendix X: Social Impact Assessment, Section 8.3.3 has been updated to provide examples of and commentary regarding aspirational targets relevant to local and Indigenous procurement and workforce participation. Once operational, a workforce of approximately 10 - 15 FTE is expected for the Project's operation and ongoing maintenance.	Appendix X: Social Impact Assessment Section 7.2.2 Section 8.3.3
142	142.0029	Private	Social Impact Assessment	Workforce accommodation village	Locals are concerned about the effects of a large influx of non-resident employees in the area. A main concern is the effect on rents and housing availability as vacancies are low in all towns. ARTC has committed to build workers camps out of town for employees to move into if local rents go up. ARTC doesn't say how or when this will be monitored or when it will be acted upon. A local council suggested the accommodation capacity of the local area be increased as a legacy benefit of the project instead of workers camps.	Require ARTC to supply details of discussions with stakeholders that explain why the suggested legacy benefit was not a possible and superior solution.	ARTC acknowledges residents' concerns about housing pressures and the Project includes three proposed workforce accommodation facilities, which are not contingent on whether rents increase. Appendix X: Social Impact Assessment, Section 8.4 provides comprehensive detail on how accommodation needs will be managed and monitored. Opportunities for the future beneficial re-use of the three non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor in consultation with Councils, the owners of sites and local community members.	Appendix X: Social Impact Assessment Section 8.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
142	142.0030	Private	Economics		There is no breakdown of the economic impact to the project regions during operation. There are 10-15 operational jobs anticipated but they are shared between neighbouring rail projects so the number will be lower. The impact to hospitality is said to be too small to bother quantifying but no evidence is given to support this. No consideration given for local businesses who may lose their staff to the project. Impact of lost agricultural land is enumerated but mitigation measures are left for detailed design.	ARTC needs to provide details of businesses registered with them as potential suppliers and the economic benefits can be reasonably expected to be realised in each town during construction based on this information. ARTC needs to account for the loss of business from noise and economic cost of the burden of disease from increased ischaemic heart disease and mental health issues due to excessive noise during operation and the expected long term benefits.	<p>As detailed in Appendix Y: Social Impact Assessment, there are local 9 businesses within the study area whose amenity could be affected by construction noise. Short-term accommodation businesses are likely to experience some negative impacts as a result of increased noise and temporary access disruptions during construction which may result in loss of income. ARTC will consult with businesses within towns where construction noise or traffic disruptions could affect their amenity and consider their feedback in finalising plans for works near their businesses.</p> <p>In relation operational impacts, ARTC acknowledges that due to the nature of the Project, the operational economic impacts of the Project will only be fully realised once all components of Inland Rail are completed. Assessing each link of the Inland Rail Program individually and in isolation of the whole Program will not capture all the benefits expected to be generated upon completion of the entire Melbourne to Brisbane connection. For the Border to Gowrie section, it is anticipated that ongoing operation and maintenance of will require a workforce of 10 - 15 FTEs as quoted by the submitter. This does not reflect the potential of additional impacts which may arise from the development of supporting infrastructure such as intermodal terminals. Considering the development of other infrastructure or Project options is outside the scope of this EIS. For other operational impacts are reflected in various chapters of the EIS e.g. noise and vibration impacts (refer to Chapter 16: Noise and Vibration, Section 16.8).</p> <p>ARTC will implement mitigation measures to ensure impacts to the availability of the local workforce is not reduced. These include:</p> <ul style="list-style-type: none"> Establishing the IR Skills Academy training and capacity building initiatives (to increase the labour pool) Monitoring labour draw in consultation with key stakeholders Corrective actions if required e.g. to recruitment or training strategies <p>In terms of loss of agricultural land, in response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. Revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>In accordance with the Australian Jobs Act 2013 (Cth), ARTC has prepared an Australian Industry Participation Plan (AIP) Plan for the Inland Rail Program which identifies how Australian entities, particularly businesses operating within the Goondiwindi, Toowoomba and nearby Local Government areas (LGAs), will be provided full, fair and reasonable opportunity to bid to supply goods and services to the Project. ARTC is also committed to ensuring that Indigenous businesses, including those operating within the SIA study area, are identified and encouraged to participate in the Project's supply chain. In recognition of stakeholders' expectations, and to ensure local business benefit from the Project, ARTC has developed subgroups to further categorise and define the geographical boundaries of what constitutes local, as discussed in Section 17.6 of Chapter 17: Social, and will report on local supplier participation from within the Goondiwindi and Toowoomba LGAs, as well as at regional, state and national level. The majority of supply opportunities for businesses will be with the construction contractors and their supply chains, not directly with ARTC. Tenderers for Project construction will be made aware of the need to engage local businesses and required to ensure they have a full, fair and reasonable opportunity to tender.</p> <p>ARTC will implement Inland Rail's Sustainable Procurement Policy (available at inlandrail.artc.com.au/inlandrail-sustainable-procurement-policy) for the Project. The Sustainable Procurement Policy aims to maximise the involvement of businesses, and includes a focus on building local businesses' capacity, to increase the number of businesses in the SIA study area that can successfully compete for Project supply opportunities.</p> <p>ARTC is engaging with the Contractors regarding acceptable standards for subcontracting, and will also work with small businesses to provide information about how to engage with major contractors.</p> <p>ARTC will also consider aspirational targets identified in the Queensland Procurement Policy (Department of Energy and Public Works, 2021) in evaluating the Contractor's targets. The Queensland Procurement Policy's targets include:</p> <ul style="list-style-type: none"> Increasing government procurement with Aboriginal and Torres Strait Islander businesses to three per cent of addressable spend by 2022 Sourcing at least 25 per cent of procurement by value from Queensland small and medium enterprises, increasing to 30 per cent by 30 June 2022. <p>ARTC acknowledges the concerns that the local community and businesses along the Project alignment may experience a loss of lifestyle amenity due to construction and operational impacts including noise, vibration and related economic costs to business. Proposed mitigation measures are outlined in Chapter 17: Social, Social Impact Management Plan, Section 17.6.</p> <p>As outlined in the mitigation measures outlined in Chapter 17: Social, Social Impact Management Plan, Section 17.6.4.7-4, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment 	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Section 17.6 Chapter 18: Economics Section 18.3 Section 18.7
142	142.0031	Private	Social Impact Assessment	Aquatic fauna	Increases in population bring about increased demand for services. Apart from a commitment to supply a paramedic, and to inform existing services of anticipated changes in population, there has been no attempt made to address these issues. No attempt has been made to quantify social impacts at the town or region level. Information Qld Health that extra doctors will required short term fails to take into account the town's long-standing problems attracting and retaining physicians. There is currently a wait of several months for driving tests in Inglewood. There is insufficient bandwidth for using the internet at certain times of the day.	The EIS should be amended to add this information and supply meaningful mitigation measures, rather than relying on other agencies to fix their mess.	<p>The revised draft EIS includes a very detailed assessment of social impacts, benefits and mitigation measures, in accordance with the EIS Terms of Reference and Social Impact Assessment Guideline.</p> <p>Health service shortages are acknowledged in Appendix X: Social Impact Assessment, Section 7.4. Government agencies such as Queensland Health and Queensland Ambulance Service are required and funded to provide services to people in need. ARTC has committed to working cooperatively with the relevant agencies.</p> <p>Expanded measures for mitigation of potential impacts on health services have been provided in the revised draft EIS (Appendix X: Social Impact Assessment, Section 8.5.8 Table 8.12), including providing workplace health and safety services, including health promotion programs and access to GP services for personnel residing in the non-resident workforce accommodation, via either local or remote service providers, and/or through telehealth services.</p> <p>Section 8.5.8 of Appendix X: Social Impact Assessment notes that as part of quarterly consultation with Queensland Health, ARTC will monitor impacts on local health services. If undue strain on local health services is identified to be attributable to the Project, ARTC will work with Queensland Health and DD&WM PHN to implement appropriate measures that may include funding additional health services and programs at non-resident workforce accommodation facilities, or contract arrangements with local or remote health service providers.</p> <p>Additionally, ARTC has implemented measures to minimise the spread of COVID-19 among its workforce and mitigate any associated impacts on local health services (Appendix X: Social Impact Assessment, Section 8.5.8).</p>	Appendix X: Social Impact Assessment Section 7.4 Section 8.5.8 Table 8.12
143	143.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Location for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
143	143.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Ellerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
143	143.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
143	143.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property. Cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
143	143.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas), and the Contractor is currently undertaking due diligence to identify a third site in the Millmerran area.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be nominated by the appointed Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised by the Contractor during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated by the Contractor. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. The Contractor is currently undertaking due diligence to identify a site for the establishment of non-resident workforce accommodation facilities in the Millmerran area. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
143	143.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20.5.1</p> <p>Section 20.6</p>
143	143.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <p>a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water.</p> <p>b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service.</p> <p>c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities.</p> <p>d. Benefits to the town and wider community as there is potential for increase in economic activity.</p> <p>e. Showground site could make use of infrastructure install for the camp, once the camp was removed.</p> <p>f. Emergency service would be more readily available if required.</p>	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
143	143.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.5
144	144.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
144	144.0002	Private - Turallin Workers	Traffic and Transport		a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. b. Increase in traffic on narrow roads that are already heavily traversed. c. Impact on Travel time as it is further from the alignment of the rail project. d. Turallin and Ellerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. e. Could impact on Millmerran town parking availability.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56
144	144.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage. Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility. As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facilities would be serviced by the mains power grid (Energex), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4
144	144.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
144	144.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11</p>
144	144.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20.5.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20.5.1 Section 20.6</p>
144	144.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description Section 5.6.4</p>
144	144.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.</p>	<p>Chapter 11: Flora and Fauna Section 11.5</p>
145	145.0001	State Agency	Approvals/conditions/recommendations		The Department of Transport and Main Roads (TMR) agrees that the project fits the definition of government supported transport infrastructure; (GSTI) under the Transport Infrastructure Act 1994. However, it has not yet been confirmed if the project fits the definition of GSTI under the Planning Act 2016. TMR understands that the Coordinator General (CG) is currently considering if the project is GSTI and deciding on the projects approval pathway. If the project is GSTI under the Planning Act 2016, TMR would not have the opportunity to review the project after the CGs final Environmental Impact Statement (EIS) evaluation report, other than through contractual negotiations and the limited and specific approvals required for access to, and works on, the state-controlled roads and rail corridors in accordance with the Transport Infrastructure Act 1994. In such a scenario, TMR considers that it would be both reasonable and lawful for the CG to include imposed conditions in the CG evaluation report to protect TMRs state interests and obligate ARTC to undertake their various commitments in the EIS/Outline Environmental Management Plan (and others as needed to protect TMRs interests), where those requirements are not enforceable by other statutory processes similar to the approach taken for the Cross River Rail project.	<p>It is recommended that this Section be reworded to state that the project is considered GSTI under the Transport Infrastructure Act 1994, and updated to reflect the outcomes of the CG's investigation into whether the project is GSTI in accordance with the Planning Act 2016, and any resulting impact that may have on the projects proposed approval process. TMR would appreciate the opportunity to continue to discuss the project approval process with the CG once it has been confirmed, and provide further input regarding the need for, and ultimate format of, any conditions in the CG's final evaluation report for the project to protect TMRs State interests. TMRs expectation is that this discussion will occur in the coming months as ARTC updates the EIS to reflect TMR and other state agencies comments prior to the CG's evaluation report being finalised.</p>	<p>ARTC sought and was granted Coordinated Project status under the State Development and Public Works Organisation Act.</p> <p>The Coordinated Project process allows all Commonwealth matters to be assessed under Queensland legislation through the provisions of the Commonwealth and Queensland bilateral agreement for environmental assessment (in accordance with Section 45 of the EPBC Act) (Section 3.2.2 of Chapter 3: Legislation and Project Approvals Process). Under these provisions the Commonwealth relies on agreed Queensland assessment processes to address matters under the EPBC Act.</p> <p>The Coordinator-General may impose stated conditions that must be incorporated into subsequent development approvals.</p> <p>The revised draft EIS has been updated to reflect outcomes from regular engagements with DTMR and other State agency comments. ARTC commit to on-going engagement with DTMR, other State agencies and local governments throughout the post-approval stages of the Project.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.2.2</p>
145	145.0002	State Agency	Approvals/conditions/recommendations		The State Assessment and Referral Agency (SARA) has been moved from Queensland Treasury (QT) to the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). The report refers to SARA in Department of State Development, Tourism and Innovation (DSDTI). The correct department should be referenced. Approvals under the Transport Infrastructure Act 1994 may also include approvals for access to a state-controlled road granted under Section 62. The Table should be updated to reference that approval.	<p>Table 3.4 should be updated to correctly reference relevant Queensland Government Departments, in particular the movement of SARA from QT to DSDILGP. It is also recommended the Table be updated to include approvals granted under Section 62 of the TIA.</p>	<p>Government department names have been updated in the revised draft EIS.</p>	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0003	State Agency	Approvals/conditions/recommendations		Table 3.5 references development permit for works within, adjacent or impacting state transport infrastructure and the lists the relevant legislation as the TI Act and the Planning Regulation. The relevance of this row/Section in the Table is unclear. The triggers within the Planning Regulation are not necessarily relevant for this project and the approval issued through the Planning Act 2016 do not authorise works within a transport corridor. Approval for works within a transport corridor are granted under the relevant Section of the Transport Infrastructure Act 1994. It is recommended this Section be reworked or removed.	Recommend this row/Section in Table 3.5 be revisited to identify its relevance to the project and either remove or amend as required.	Table 3.5 in the revised draft EIS Chapter 3: Legislation and Project Approvals Process) has been updated to identify potential post-EIS approvals. This includes the indicative requirements for activities during detailed design and construction works. The relevance of the TI Act/Planning Regulation being triggered via the Project undertaking development on State transport infrastructure is for activities proposed to be undertaken during detailed design and construction works. It is also noted within Table 3.5 (Chapter 3: Legislation and Project Approvals Process) that the TI Act has been identified to be triggered due to proposed road works, ancillary works, construction, maintenance and operations that encroach on State-controlled roads. Unless potential exemptions apply, the Contractor will be required to seek approval from DTMR under Section 33 of the TI Act at least 20 business days prior to commencement of Project works that interface with State controlled roads. The Coordinator-General may impose stated conditions that must be incorporated into subsequent development approvals. They may also provide recommendations for other approvals required by the Project.	Chapter 3: Legislation and Project Approvals Process Table 3.5
145	145.0004	State Agency	Project scope		The EIS provides details of two road over rail bridges on state-controlled road in Table 5.11 (Cunningham Highway bridge and Gore Highway bridge). Cross-sectional arrangement for the proposed bridges (rail over road) should not constrain/restrict future growth/capacity for traffic, and should allow ease of structural maintenance, inspection and traffic management for incident management. These aspects need to be acknowledged in the EIS when proposing bridge designs to TMR.	Cross-sectional arrangement for the proposed bridges (rail over road) should not constrain/restrict future growth/capacity for traffic, and should allow ease of structural maintenance, inspection and traffic management for incident management. These aspects need to be acknowledged in the EIS when proposing bridge designs to TMR.	ARTC will continue to work collaboratively with DTMR as the Project progresses to detailed design. For the Gore Highway and Cunningham Highway, DTMR has not advised of any plans for future works and therefore the overpass cross Section proposed accommodates the existing lane configuration. ARTC will accommodate any future growth/upgrade plans for DTMR roads, where they have been identified/demonstrated by DTMR through technical forums and in DTMR's Minimum Technical Requirements documentation. From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Refer Chapter 20: Traffic, Transport and Access, Section 20.3 and Section 20.5 for traffic assessment details. Access provisions for structural maintenance, inspection and traffic management for incident management will also be determined during detailed design and the cross Section may be adjusted as required.	Chapter 20: Traffic, Transport and Access Section 20.3 Section 20.5
145	145.0005	State Agency	Traffic and Transport		The EIS notes a number of utility services (communication, electricity, gas, water, sewerage) that have been identified for either protection or relocation to facilitate ARTC works.	The relocation of utility services should not preclude TMR from future development in the road reserve nor should it lead to an increase in cost for TMR future works. Amend the project and EIS as needed.	Section 20.3.6 of Chapter 20: Traffic, Transport and Access confirms all utility owners have been consulted by ARTC during the reference design process to establish potential interface impacts and to identify design solutions. Prior to construction commencing, the relevant land owners (i.e. easements, road corridor, private property) including DTMR and utility owners are required to endorse/approve all proposed utility treatments/designs within land under their management and control. This includes for temporary and permanent roads. ARTC will continue to work collaboratively with stakeholders, including DTMR, regarding their future works in the Detailed Design stage.	Chapter 20: Traffic, Transport and Access Section 20.3.6
145	145.0006	State Agency	Approvals/conditions/recommendations		The EIS mentions pre-construction activities and early works for establishment of access tracks, stockpiles/laydown areas etc. The EIS however, does not provide details regarding the approval process for undertaking these works in relation to identification, design approval of temporary access from state-controlled road, approval process for traffic management, environmental management and access to road reserves for construction activities from respective road authorities.	Update the EIS to provide an outline of the approval process from road authorities to undertake works.	Chapter 5: Project Description, Section 5.5 describes pre-construction and early works in the following manner: Pre-Construction Activities and Early Works are undertaken prior to full mobilisation of the Contractor. These works may be undertaken under a separate contract but must not start until the Draft Outline Environmental Management Plan has been approved by the Coordinator-General and the relevant Early Works Construction Environmental Management Plan (CEMP) has been endorsed by the Environmental Monitor. Pre-Construction Activities and Early Works include: <ul style="list-style-type: none"> Site preparation for construction Establishment of access roads/tracks Vegetation clearing and other ground disturbance activities that will be required to comply with relevant legislative requirements, approval conditions, guidelines and plans Additional surveys and geotechnical investigations to inform the Construction Works stage Relocation or protection of QR assets that were not required to be undertaken well in advance as part of enabling works Utility/service interfaces that were not required to be undertaken well in advance as part of enabling works Modification of biosecurity fencing Installation of boundary fencing Establishment of site offices and initial laydown areas, including the Whetstone MDC Establishment of non-resident workforce accommodation. Details of the Approvals process will be fully detailed following the Coordinator-Generals assessment of the Project and receipt of state-conditions that must be incorporated into subsequent development approvals.	Chapter 5: Project Description Section 5.5
145	145.0007	State Agency	Project scope		The EIS identifies that although ARTC is applying for trains at a length of 1.8 km all infrastructure works including corridors and land has been designed for 3.6 km trains (including passing loops, land requirements and infrastructure). It is unclear how impacts associated with an increase in train length will be considered.	Clarify how a change to the project approval which is currently for 1.8 km will be considered if the operations of trains increase in length to 3.6 km as identified in the EIS. The increase is likely to include changes to impacts associated with noise and vibration, visual amenity and social impacts.	The revised draft EIS investigations are limited to the impacts of trains of 1,800 metre (m) length, as stated in Chapter 5: Project Description, Table 5-4. All references to a future increase in length have been removed from the revised draft EIS. It is agreed that a future change from 1,800 m to 3,600 m will require a reassessment of environmental impacts including noise and vibration, visual amenity and social impacts.	Chapter 5: Project Description Table 5.4
145	145.0008	State Agency	Project scope		Section 5.4.2 states in relation to the construction schedule that Contractor award mid-2021. Some tasks can commence prior to contract award. Considering it is now March 2021, it is recommended that these dates are updated in the EIS.	Amend the EIS to reflect a realistic construction timeframe.	The draft EIS was based on assumptions current at the time of assessment. Time frames in the revised draft EIS have been updated to incorporate an updated construction schedule. The anticipated timing of stages for the Project are shown in Chapter 5: Project Description, Table 5-3. Mobilisation and Construction is currently scheduled to commence mid-2024 and be completed in early-2028. Inland Rail, and the Project, are scheduled to be operational in early 2028.	Chapter 5: Project Description Table 5-3
145	145.0009	State Agency	Land Resources		The EIS references dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. This indicates a misunderstanding of best practice amelioration methods by including the use of lime and mixing with a reclaimer/stabilizer, which could be misinterpreted as being hydrated/quicklime and would not be appropriate for neutral to alkaline soils. Additionally, there does not seem to be any consideration of amelioration of sodic subsoils for use in homogenous and outer zone of zoned embankments as per TMR Interim Soil Management Manual (SMM).	In the absence of any nominated ARTC standard, include the requirement for mapping or testing to determine the suitability and risks of the project's topsoils and subsoils as the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications prior to disturbance. Amend the EIS accordingly.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 3.2.2, Section 4.5 and Section 5.0. This level of investigation is sufficient to allow determination of the suitability of the soils and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. This enabled the management of the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2008), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at a 1:10,000 scale in consultation with DoR. The soil investigation report provides detailed soil profile descriptions and laboratory test results. Findings from the detailed soil investigation have been incorporated into Chapter 9: Land Resources, Section 9.3.2 and Section 9.4.2. Section 3 in Appendix AB: Earthworks and Draft Soil Management Plan also presents mitigation measures for soil units within the Project footprint.	Chapter 9: Land Resources. Section 9.3.2 Section 9.4.2 Appendix J: Soil Assessment Report Section 3.2.2 Section 4.5 Section 5.0 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3
145	145.0010	State Agency	Surface Water		The EIS quotes October 2020 figures but these are now six months out of date and inaccurate. The variance in data is quite dramatic and should be revisited. For example: <ul style="list-style-type: none"> Ben Dor Weir is quoted as 81.8% full but by March 2021 it was 46.29% full Coolmunda Dam is quoted as 28.8% full but by March 2021 it was 17% full Talgai weir quoted is as 26.3% full but by March 2021 it was 82% full Lemon Tree weir is quoted as 13.7% full but by March 2021 it is was 62.4% full. Inaccurate water data will likely lead to increased cartage on state-controlled roads. The Terms of Reference (ToR) requires the EIS to use current data. 	Amend the EIS to demonstrate if existing dams have sufficient total capacity for Inland Rail works, instead of available volume.	Appendix S: Surface Water Quality Technical Report and Chapter 13: Surface Water of the revised draft EIS have been updated to remove reference to stored volumes in existing dams, as was presented in the draft EIS.	Chapter 13: Surface Water Appendix S: Surface Water Quality Technical Report
145	145.0011	State Agency	Surface Water		Section 5.4.20.2 regarding other water source opportunities states that potential sources of water from the Commodore mine to be investigated post EIS. The ToR requires the EIS to use current data. Sourcing of water is critical to the project. Therefore it would be appropriate to consider water requirements as part of the EIS.	Office of the Coordinator-General to consider if the lack of data is adequate to meet the requirements of the ToR.	ARTC recognises that water sourcing and availability is critical to supporting the construction program for the Project. Updated information is provided in Section 5.6.24 of Chapter 5: Project Description regarding construction water, specifically the estimated volumes required, water quality parameters, potential sources, access and reliability. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements. Since advertisement of the draft EIS, various land holders and other stakeholders have been forthcoming with offers to sell all or part of their licenced groundwater entitlement to ARTC for use as construction water. To date, offers to sell licenced groundwater entitlement are in excess of 1,870 ML/yr, from registered bores located along the full length of the Project footprint. For context, this volume equates to 67% of the total estimated water requirement for earthwork, track work and revegetation activities. The total volume of water made available through these offers is expected to increase as the Project progress towards construction. Additional sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable. The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan, to be finalised prior to the commencement of construction.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
145	145.0012	State Agency	Approvals/conditions/recommendations		Regarding whether the contractors and ARTC remain ineligible to operate under the exemption requirements, a temporary water permit would be required before taking any water for construction activities. It is unclear whether the timescales and requirements have been adequately assessed if a temporary water permit is required. Additionally, it is unclear if this strategy provides enough volumes.	Update the EIS to adequately assess and consider what implications are for the project if a temporary water permit is required, what are the required timeframes and if the proposal strategy provides sufficient volumes.	ARTC confirm that a temporary water permit will be required for dewatering activities and to manage any groundwater seepage intersected by the cuts and are anticipated to be required for the duration of construction. The final volume and details of the temporary water permit required to enable construction will be determined in Detailed Design stage. The required water permit will be obtained before the commencement of construction aspects that have been identified to interfere with groundwater resources. The initial volume estimates for groundwater, and associated water licencing requirements, post construction (Operations stage) will also be finalised during the Detailed Design stage. As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. The current hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, trading or purchasing of existing allocated entitlements will be pursued in the first instance through a water broker. Chapter 5: Project Description Section 5.6.24 of the revised draft EIS details the findings of the current construction water procurement process. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
145	145.0013	State Agency	Land Resources	Spoil management	Table 5.41 with relation to proposed construction waste quantities has topsoil stripping estimated on three stripping depths (100, 200 and 300 mm) without qualification as to the why and where such depths are to occur. There is also no reference to the type and depth of topsoil and type of underlying subsoil. The EIS has also assumed a blanket approach to topsoil stripping which can result in the contamination of stripped topsoil with sodic and or saline subsoils (and other high-risk subsoils).	In the absence of any nominated ARTC standard, include the requirement for mapping or testing to determine the suitability and risks of the project's topsoils and subsoils as the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Amend the EIS accordingly.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 5.0 Section 3.3 and Figure 3.16. This level of investigation is sufficient to allow determination of the suitability of the soils and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. This enabled the management of the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2008), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at a 1:10,000 scale in consultation with DoR. The soil investigation report provides detailed soil profile descriptions and laboratory test results. Findings from the detailed soil investigation have been incorporated into Chapter 9: Land Resources, Section 9.3.2 and Section 9.4.2. Appendix AB: Earthworks and Draft Soil Management Plan also presents mitigation measures for soil units present within the Project footprint. Topsoil is aimed to be progressively salvaged, appropriately stockpiled and then reused within the construction footprint. A commitment for the Contractor to develop a stockpile management plan. Soil degradation due to weeds has been considered as a potential impact (Chapter 9: Land Resources Section 9.5.6). Biosecurity risk is considered throughout Chapter 11: Flora and Fauna and specifically in Section 11.4. The EIS provides management measures for stockpiling and management/segregation of topsoil where it contains weed material. Details of the Biosecurity Management Plan prepared for the Project are outlined throughout Chapter 24: Draft Outline Environmental Management Plan with proposed mitigation measures detailed in the chapter.	Chapter 9: Land Resources. Section 9.3.2 Section 9.4.2 Section 9.5.6 Chapter 24: Draft Outline Environmental Management Plan Appendix AB: Earthworks Strategy and Draft Soil Management Plan Appendix J: Soil Assessment Report Section 5.0

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0014	State Agency	Project scope		The EIS notes that there are 12 rail interfaces (tie-ins) with the existing railway corridors (South Western line and Millmerran Branch line). The EIS notes that the project requires the establishment of 145 km new rail and approximately 71.2 km of existing railway corridor. The project will require connection into and upgrade of Queensland Rail's existing railway corridors. Upgrade works will include the removal of existing narrow-gauge track and the construction of the new formation and dual gauge track within the existing railway corridor. Section 5.2.12 Signalling and communications notes that the Advanced Train Management System (ATMS) will replace the existing Direct Traffic Control operational along Queensland RAILS (QR) existing rail network. The EIS does not reflect the requirements under Section 255 of the Transport Infrastructure Act 1994 that the railway managers written approval must be obtained where carrying out works in or on a railway corridor or otherwise interfere with the railway or its operations.	Amend the EIS to reflect the requirements under Section 255 of the Transport Infrastructure Act 1994 by inserting the following wording: The staging of the works within the existing railway corridors and the management of potential impacts may be the subject of an interface agreement between ARTC and QR. Approvals under the Transport Infrastructure Act 1994 will be required to be sought from the railway manager where carrying out works in or on a railway corridor or otherwise interfering with the railway or its operations, prior to the commencement of any works in the railway corridors. The railway manager is responsible for maintaining and operating the railway corridor. It is currently assumed that ARTC will be able to occupy sections of the existing rail corridor through temporary possession agreement for extended periods to avoid the need for constrained, short-term possession works. This construction staging approach within existing rail corridors will require confirmation during the detail design stage of the Project, through discussion with and relevant approvals and agreements to be obtained from the railway manager (Queensland Rail).	ARTC note the issue raised with regards to the requirements under Section 255 of the Transport Infrastructure Act 1994 (Qld) (TI Act). The following wording has been added to Chapter 5: Project Description, Section 5.34.2 to reflect the requirements under Section 255 of the Transport Infrastructure Act 1994 (Qld): The staging of works within existing rail corridors and the management of potential impacts will be the subject of an interface agreement between ARTC and QR. It is currently assumed that ARTC will be able to occupy sections of the existing rail corridor through a temporary possession agreement for extended periods to avoid the need for constrained, short-term possession works. The Construction staging within existing rail corridors will be confirmed during the Detailed Design stage of the Project. As part of ARTCs ongoing engagement with QR and TMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) obligations during Detailed Design, Construction Works and Operations stages will be clarified. Any necessary interface agreements with QR will also be in place prior to the commencement of construction. It is stated in Chapter 3: Legislation and Project Approvals Process, Section 3.4.30 that under the TI Act, various authorisations are required where infrastructure or works are proposed within transport corridors. Approvals and permissions required of the Chief Executive or Railway Manager include: <ul style="list-style-type: none"> Section 168 — Written approval of the Chief Executive to carry out works near a railway which threaten or a likely to threaten the safety and operational integrity of a railway Section 255 — Written permission from the railway manager to carry out works in or on a railway corridor or otherwise interfere with the railway or its operation Section 476B — Written approval of the Chief Executive to carry out works on land which threaten or are likely to threaten the safety and operational integrity of transport infrastructure. DTMR/QR/ARTC are working collaboratively to establish a governance structure to address these matters. ARTC anticipate the roles and responsibilities in relation to RIM status will be resolved prior to construction through a signed agreement. However, agreement in principle is expected to be known significantly earlier, which would enable appropriate discussions during Safety in Design (SID) workshops during the Detailed Design stage.	Chapter 5: Project Description Section 5.4.2 Chapter 3: Legislation and Project Approvals Process Section 3.4.30
145	145.0015	State Agency	Land Resources		Section 5.4.12 of the EIS states that: The earthworks will mostly involve the excavation of cuttings and the construction of formation. Non ripable rock will be broken down via drill and blast or by hydraulics rock breakers Significant volumes of non-rippable rock are anticipated within some of the cuttings along the railway corridor, particularly in the northern part of the alignment. However, the EIS does not detail the interface of the proposed bulk earthworks with the existing railway corridors. The EIS also does not mention any potential impacts of blasting impacts on the state-controlled transport infrastructure.	Amend the EIS and supporting reports to demonstrate how the project will comply with PO3, PO5, PO11 to PO15 of the State Code 2: Development in a Railway Environment, of the State Development Assessment Provisions and Part 2.7 - Filling, Excavation and Ground Disturbance of the Guide for Development in a Transport Environment: Rail. In particular, ARTC should provide the following, amongst, other relevant information: (a) Preliminary Geotechnical Investigation. <ul style="list-style-type: none"> A RPEQ certified preliminary geotechnical investigation of the site. This should provide preliminary geotechnical design information on the following, amongst other relevant considerations, to inform the structural engineering design and construction management of the development. earthworks, including methods for the excavation, the excavation and drilling of rock, the stability of open excavations, and filling/back filling and compaction. permanent and temporary retention options, design loads and geotechnical design parameters. suitable options for foundation structures, design loads and geotechnical design parameters. groundwater management. vibration impacts from drilling, boring, blasting and excavation, - advice on effects on the existing rail transport infrastructure and relevant construction issues. (b) RPEQ certified concept plans for earthworks and structures Provide RPEQ certified conceptual structural engineering design and earthworks plans for the development, including cross sections/elevations and any required supporting technical details showing the earthworks/batters/retaining structures in proximity to the existing railway corridors. This should include: <ul style="list-style-type: none"> the location and extent of proposed excavation and filling (earthworks), including likely volumes of cut and fill adjacent to the railway corridor. the maximum depth of any excavation adjacent to the railway corridor. the maximum height and intended form/design of any proposed retaining walls or structures adjacent to the railway corridor. where proposed excavations, filling/backfilling or retaining works will be greater than 1 m in depth or height abutting the railway, RPEQ certified drawings should be provided demonstrating that the works will not de-stabilise rail transport infrastructure or the rail corridor land supporting this infrastructure. This should include the loading configuration of any embankments and retaining walls, including foundation and retaining structures. demonstrate that any retaining structures, excavations, filling/backfilling and structures will be located outside the railway corridor. (c) Blasting - provide proposal plans demonstrating that any blasting activities will be adequately setback from the railway corridor. - demonstrate that the project does not involve blasting or provide a blasting management plan that has been prepared in consultation with and approved by the railway manager (Queensland Rail). Queensland Rail can be contacted at: developmentenquiries@qr.com.au . ARTC is advised that the construction of the project will need to address vibration, ground movement and loading impacts on the existing railway corridors.	As described in the revised draft EIS Chapter 18: Economics, Section 18.6, the staging of the works within existing rail corridors, and their associated impacts, will be the subject of an interface agreement between ARTC and QR. Chapter 5: Project Description Section 5.4.2 and design drawings part 1 and 2 articulate the preferred construction method of the Project reference design that is planned to be constructed to replace (over the top of) the existing single Queensland Rail (QR) track. <ul style="list-style-type: none"> QR South Western Line (~47 km between Kurumbul and Whetstone) QR Millmerran Branch Line (~21 km Between Millmerran and Pittsworth) In response to State Code 2: Development in a Railway Environment, of the State Development Assessment Provisions and Part 2.7 Filling, excavation and retaining structures have been designed with consideration for local geotechnical conditions such that the design life (50-100 years, dependent on component) and functional performance of the railway and rail infrastructure, once completed, is not compromised. Settlement values have been incorporated into the earthworks performance criteria for the Project. These criteria have formed the basis of assessment when undertaking settlement analysis and determining foundation treatments for rail infrastructure. Retaining structures have been designed to the loadings stipulated in AS 5100.2 and in accordance with AS 5100.3. Existing structures within the rail corridor will be assessed to ensure the asset remains fit for purpose post-construction of Inland Rail. Vibration-intensive work is likely to be undertaken at times as part of the construction works. This may include the use of plant, such as piling rigs and vibratory rollers, or the undertaking of activities, such as blasting. The activities conducted will be those required to construct the Project to achieve the adopted performance and design specifications, as well as safety requirements. Where ground movement or vibration does occur within the rail corridor during construction, the potential impacts will be managed in accordance with the controls and mitigation measures specified in Section 16.10 Chapter 16: Noise and Vibration. No retaining walls have been identified in the revised reference design. However, if retaining wall structures are required through design development, the design of such structures will be informed by geotechnical data and will be approved by an RPEQ prior to construction. The visual impacts for retaining and reinforced earth structures would therefore be limited in extent and mitigated by landscaping. Structures will be assessed by an RPEQ prior to construction to assess their compliance to AS5100.2 and 5100.3. Consultation with Third Party Structure owners will be undertaken. Temporary works will be subject to a design process carried out by the contractor for the works. Finally, as part of ARTCs ongoing engagement with QR and TMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) obligations during Detailed Design stage, Construction Works and Operations will be clarified. Arrangements between ARTC and the State will be defined through Third Party Agreements. Any necessary interface agreements with QR will also be in place prior to the commencement of construction.	Chapter 5: Project Description Section 5.4.2 Chapter 16: Noise and Vibration Section 16.10 Chapter 18: Economics Section 18.6
145	145.0016	State Agency	Project scope		Section 5.2.10 notes that fencing will be provided to the majority of the railway corridor, with primary purpose to limit access. Fencing in greenfield track areas will be in accordance with ARTC fencing standards. The EIS does not indicate what is proposed to occur along the existing railway corridor boundaries. In particular areas where proposed works in the existing corridor will likely disturb/damage or remove existing railway corridor fencing.	Amend the EIS to include existing and proposed fencing details regarding the existing railway corridor. New and replacement fencing in the railway corridor will need to be in accordance with the railway managers standards: <ul style="list-style-type: none"> Queensland Rail Civil Engineering drawing number QR-C-S3235, Rural Fences Queensland rail Civil Engineering drawing number QR-C-S3231 Timber Fence Queensland rail Civil Engineering drawing number QR-C-S3230 1.8 m high Chain Link security fence without rails; or Queensland Rail Civil Engineering drawing number QR-C-S3229 1.8 m high Chain Link security fence with top and bottom rails. 	To prevent public access to the Project's rail corridor, fencing will be provided for the majority of the rail corridor. Fencing will act to protect adjoining lands from trespass and to prevent livestock and wildlife from gaining access to the railway. Fencing is to extend between the corridor and private lots or property adjoining the railway. Specific fencing considerations will be discussed with relevant landowners as part of the Detailed Design stage. As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC guidelines, with specific considerations discussed with local landowners during the Detailed Design stage. Where ARTC proposes to construct within the QR corridor for all returned works (QR South Western Line and Millmerran Branch Line), ARTC will comply with QR standards; this includes for all new and replacement fencing. All existing fencing is proposed to be removed and replaced. Where ARTC is proposing to construct new railway corridor that coincides with road manager or landowner fencing, this will be replaced typically with reference to the ARTC guidelines. Where superior fencing is required, for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur, a 1.8 m chain link boundary fence may be provided. Fencing standards and approach to the provision of fencing to a Reference Design Level are provided in Chapter 5: Project Description, Section 5.4.12.	Chapter 5: Project Description Section 5.4.12
145	145.0017	State Agency	Hazard and Risk		Table 5.43 indicates a list and levels of dangerous goods and hazardous materials proposed. The project involves dangerous goods in proximity to the existing railway including the use and transport of dangerous goods to and from the site. Any development in proximity to a railway corridor must be designed and constructed to ensure that impacts of a fire, explosion, spill, gas emission or dangerous goods incident can be appropriately mitigated.	Amend the EIS and supporting documents to demonstrate how the proposed project will comply with PO23, Table 2.2.1, of State Code 2: Development in a Railway Environment of the State Development Assessment Provisions. In particular, ARTC engaged with stakeholders should demonstrate whether the proposed uses on the site will involve the handling or storage of hazardous chemicals above the threshold quantities identified in AO23.1. Where these thresholds are exceeded, ARTC engaged with stakeholders is required to provide information demonstrating how the proposed project will be designed and constructed to minimise the impacts of a fire, explosion, spill, gas emission or dangerous goods incident on the railway corridor. ARTC engaged with stakeholders should provide a Registered Professional Engineer of Queensland (RPEQ) certified risk assessment in accordance with Chapter 2.6 Dangerous Goods and Fire Safety and Appendix 1 Development Risk Assessment Guide of the Guide to Development in a Transport Environment: Rail and demonstrate how measures will be incorporated into the project design to minimise the identified risks. This should address the following risks, among other identified risks: minimising or controlling the outbreak of fire, controlling smoke and/or gas release dispersion, minimising heat build-up in structures, limiting the possibility of structural components being blast damages, providing stability or contingency measures in the proposed development, providing safe emergency access and egress to and from the railway, ensuring effective containment and clean-up of dangerous goods incidents. Amend the EIS ('Draft OEMP' and Proponent Commitments) accordingly.	This submission is in reference to Section 2.6 (Dangerous Goods and Fire Safety) of the Guide for Development in a Transport Environment: Rail (TMR, 2015). The purpose of the Guide to Development is to provide developers of land adjacent to a railway with information regarding the issues that need to be considered when planning for development in a railway environment. Section 2.6 of the Guide for Development supports the performance outcomes (PO) and acceptable outcomes (AO) as outlined in PO5 of Module 18: State transport infrastructure protection, 18.1 Filling, excavation and structures state code in SDAP (v1.6, 2015). The intent of PO5 of Module 18 (v1.6) is now addressed by PO26 of State Code 2: Development in a railway environment of the current version of SDAP (v3. 0, 2022). The objective of this PO is to ensure that development involving dangerous goods does not adversely impact on the safety or operations of the railway and rail transport infrastructure. A list of the dangerous goods and hazardous substances that are expected to be required during construction of the Project is provided in Table 21-14 of Chapter 21: Hazard and Risk. These listed substances will be used in a variety of construction tasks at work fronts throughout the Project footprint. The threshold quantities listed in Table 5.2 of the Model Planning Scheme Development Code for Hazardous Industries and Chemicals (Office of Industrial Relations, Department of Justice and Attorney General, 2016) will not be exceeded in any one location.	Chapter 21: Hazard and Risk Table 21-14

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0018	State Agency	Traffic and Transport	Level crossing	<p>The project interfaces 10 times with state-controlled roads, three times at existing level crossings, and seven times at new locations. The seven new proposed crossing are as follows:</p> <ul style="list-style-type: none"> 310-24-P-2 Millmerran-Ingleswood Road (Active level crossing) (TMR) 310-11-P-O Cunningham Highway (Grade separation) (TMR) 310-56-P-2 Warrego Highway (Grade separation: rail-over-road (bridge)) (TMR) 310-48-P-8 Oakey-Pittsworth Road (Grade separation: rail-over-road (bridge)) (TMR) 310-55-P-1 Toowoomba-Cecil Plains Road (Grade separation: rail-over-road (bridge)) (TMR) 310-35-P-4 Millmerran-Ingleswood Road (Grade separation: rail-over-road (bridge)) (TMR) 310-37-P-12a Millmerran-Ingleswood Road (Grade separation: rail-over-road (bridge)) (TMR) <p>All of these seven new state-controlled road interfaces are proposed to be grade separated except 310-24-P-2 Millmerran-Ingleswood Road. TMR does not support this proposed level crossing as it is inconsistent with the higher-order function of Millmerran-Ingleswood Road, and the other two grade separated crossings proposed for Millmerran-Ingleswood Road. Creating new level crossings also does not achieve the objectives of the Queensland Level Crossing Safety Strategy 2012 to 2021.</p>	<p>Amend the project proposed design to ensure that it does not create any new level crossings with state-controlled roads (i.e. ensure 310-24-P-2 Millmerran-Ingleswood Road is grade separated). This is a TMR requirement. Amend the EIS accordingly.</p>	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Ingleswood Road active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Ingleswood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Ingleswood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT of Appendix AA: Traffic Impact Assessment provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Ingleswood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Ingleswood Road, at Ingleswood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Ingleswood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7:2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.8 Section 5.9 Appendix BT</p>
145	145.0019	State Agency	Traffic and Transport	Level crossing	<p>The project interfaces 57 times with local government roads.</p> <ul style="list-style-type: none"> nine interfaces are proposed to be grade separated 21 interfaces are proposed to be consolidated, relocated, realigned, or diverted resulting in no crossing 11 interfaces are proposed to be new active open level crossings 16 interfaces are proposed to be new passive open level crossings <p>Appendix X (Part 1) state that: The rail crossing impact for the project has centred on vehicle delay and queuing analysis of the project traffic at rail crossings, and at neighbouring closely spaced intersections. This analysis was undertaken for the project at proposed new rail crossings only and was not extended to the 12 existing operational rail crossings. However, Section 18.6.1.2 of Chapter 18 notes: an ALCAM assessment has been undertaken for existing and proposed railway level crossings. ARTC will continue to consult with DTMR and local governments on the preferred road-rail interfaces. Detailed information about the ALCAMs for each of the existing and proposed crossings has not been presented. It is unclear what information was used to inform these ALCAMs (preliminary or detailed design information), what treatments were considered and what informed the ultimate decision to propose the treatments for each crossing. Section 3.3.1 of Appendix X (Part 1) states: The reference design has been developed to prevent short-stacking issues with the project alignment Short stacking issues have been avoided through development of the reference design by maintaining a minimum separation distance between the outer rail of the alignment and the centre of the nearest parallel road in accordance with Section 5.4 of AS1742.7:2017 "Manual of Uniform traffic control devices: Part 7 and with the Manual of Uniform traffic control devices Part 7: railway crossings. .</p>	<p>TMR appreciates that the EIS has sporadically presented information regarding the assessment of level crossing safety. However, this information (and additional information not currently within the EIS) needs to be presented succinctly and clearly for each proposed crossing. Amend the EIS (TIA) to demonstrate how the proposed level crossings will comply with PC20 and PC24 of State Code 2: Development in a railway environment of the State Development Assessment Provisions and Chapter 2 of the Guide to Development in a Transport Environment: Rail. The RPEQ certified Traffic Impact Assessment will be required to address the following: Australian Level Crossing Assessment Model</p> <ul style="list-style-type: none"> the expected traffic distribution on the road network and the proportion of traffic that is likely to use each proposed railway level crossing the expected timeframe for the delivery of the project including the commencement of construction and the completion of the project (including any stages) existing traffic flows (expressed as vehicles per day) anticipated over the proposed railway level crossing/s, including daily (peak hour) fluctuations, and number and percentage of heavy vehicles and buses the expected background traffic growth (expressed as vehicles per day) over the proposed railway level crossing/s, including the number and percentage of heavy vehicles and buses. This should include background traffic growth from the anticipated commencement of construction and each project stage to a ten-year horizon the expected project generated traffic (expressed as vehicles per day), including daily fluctuations (peak hour) and percentage of heavy vehicles and length and number of buses, that will pass over the impacted railway level crossing/s from the commencement of construction, and each project stage to a ten year design horizon the maximum size and type of vehicle (including length, width, height and weight) anticipated over the impacted railway level crossing/s as a result of the project during construction and on-going operation (including any stages) the following data Table is required to be populated for each impacted railway level crossing: ARTC would need to engage a suitably qualified and experienced professional to conduct ALCAM assessments for each of the proposed railway level crossings using the above data requirements and also taking into account other relevant considerations such as field observations/site circumstances. Short stacking Demonstrate that there is sufficient clearance between each proposed railway level crossing and the relevant intersection or vehicular access location to allow the maximum size of vehicle used on the roadway to queue. In particular: <p>The minimum clearance should be 5 m from the edge running rail (of the closest railway track) as per Section 5.4 "Short Stacking and Figure 3.2" Yellow Box Marking of AS1742.7:2016 Manual of Uniform Traffic Control Devices, Part 7: Railway plus the length of the maximum design vehicle. The maximum design vehicle should be the maximum vehicle anticipated to use the roadway</p>	<p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers.</p> <p>An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 of Appendix AA: Traffic Impact Assessment reports on road-rail interfaces performance under peak hour operational traffic conditions for the year of opening (2028) and the 10 year design horizon (2038), based on the peak hour volumes and growth rates summarised in Table 2.17 (raw data provided in Appendix AH, Appendix AI and Appendix AJ).</p> <p>The outputs provided in Section 5.9.3 (Table 5.69) of Appendix AA: Traffic Impact Assessment outlines the maximum expected queue lengths, available storage and largest vehicle accommodated within the available storage. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>Since completing the draft EIS, short stacking operational risks have been discussed further with TMR and an agreed method to assess these risks will be included in their Minimum Technical Requirements document as agreed with TMR.</p> <p>Section 6.3 of Appendix AA: Traffic Impact Assessment provides RPEQ certification of the TIA document.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9 Section 5.9.3 Section 6.3 Table 2.17 Table 5.69 Appendix BT Appendix AH Appendix AI Appendix AJ</p>
145	145.0020	State Agency	Traffic and Transport	Level crossing	Continuation from above.	<p>Provide a plan accurately showing the available clearance between the railway level crossing and relevant intersection/access point and demonstrate how the maximum vehicle length can be accommodated with the 5 m setback from the closest track. Additionally, the vehicle must not encroach on any safety controls, such as but not limited to pavement marking (for example, box marking), for the railway level crossing or road. Provide a RPEQ certified swept path analysis based on the maximum design vehicle for turns into and out of the railway level crossing. Design ARTC should provide RPEQ certified detailed design drawings for each proposed railway level crossing which demonstrate:- Adherence to relevant design standards including the Manual of Uniform Traffic Control Devices, Part 7: Railway crossings and other applicable railway manager standards- Applicable road design standards- That safety risks will be adequately mitigated in accordance with the findings of the ALCAM assessments and short stacking assessments. Other points ARTC (the future railway manager) will be required to enter into interface agreements with the relevant local road managers. There will also be approval requirements from the road managers for any safety controls for the level crossings on the local roads. The EIS should clearly demonstrate why ARTC made the decision to grade separate or have active or passive level crossings for each road/rail interface. Clarification is required pertaining to the heavy vehicle design vehicle used in SIDRA as such parameters are not provided in the TIA report. This is to ascertain whether queueing risks account for the longest design vehicle.</p>	<p>As described in Section 3.6.2 of Appendix AA: Traffic Impact Assessment, the revised reference design has been developed to prevent short stacking issues with the Project's alignment. Short stacking issues have been avoided through development of the design in greenfield areas to ensure minimum 60 m separation distance between the outer rail of the Project alignment and the centreline of the nearest parallel road, which is compliant with Section 5.4 of AS 1742.7:2016 and with the Manual of Uniform Traffic Control Devices Part 7: Railway Crossings (DTMR, 2019b).</p> <p>Suitable short-stacking distances were also achieved in brownfield locations; however, this required a combination of horizontal rail alignment changes and road realignments, whilst balancing impacts to surrounding land use and infrastructure constraints. The available short stacking at each level crossing, and the largest design vehicle accommodated is summarised within Section 5.9.3 of Appendix AA: Traffic Impact Assessment.</p> <p>Short stacking will continue to be assessed during design development. Design drawings showing available clearances can be provided to all road managers to demonstrate compliance with relevant standards, at the appropriate design review milestone.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.6.2 Section 5.9.3</p>
145	145.0021	State Agency	Traffic and Transport		<p>The safety and efficiency of the newly created level crossings may deteriorate to an unsafe level if traffic increases on the affected local government roads post completion of the project. In such scenario, TMR considers that it would be reasonable to obligate ARTC to upgrade the treatment at the crossings (e.g. from passive to active or from at-grade to graded separated).</p>	<p>TMR recommend that ARTC be legally obligated to upgrade any new level crossings created by the project (e.g. from passive to active or from at-grade to grade separated) if the safety and efficiency of the crossing deteriorates to an unacceptable level as established through clear and predetermined threshold criteria. TMR would like to discuss such obligations with the CG once ARTC has provided additional information about each crossing. In addition to the above, the safety and operational integrity of the existing and new level crossings will need to be monitored through interface agreement arrangements. These agreements will require the level of safety risk to be continually monitored and level crossing issues reported as further development is approved and traffic increases. Consideration will have to be given to implementing improved control and safety measures, as required, including grade separation.</p>	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulators (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>In response to the above, ARTC have updated the revised draft EIS Appendix AA: Traffic Impact Assessment (TIA) with details regarding Public level crossing treatment methodology outlined in sub-Appendix BT Inland Rail Road Rail Interface Methodology. This is intended to provide Agencies and the Community with further transparency on the design process undertaken. Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project.</p> <p>For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p> <p>ARTC regularly consult with TMR regarding the Project and will continue to do so during detailed design and construction. It is noted that the design used traffic counts forecast for 2040.</p>	<p>Appendix AA: Traffic and Transport Appendix BT</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0022	State Agency	Traffic and Transport		Section 5.2.7.2 of Chapter 5 states that the project interfaces with 153 private unformed roads and 62 private formed roads. The EIS notes that ARTC will work with all impacted landowners for appropriate interfaces and level crossing treatments.	The proposal should seek to minimise the number of private occupational crossings it creates as much as possible given the safety concerns associated with private occupational crossings. Greater detail is required in the EIS to demonstrate how ARTC has sought to minimise the number of private occupational crossings.	As outlined in Appendix AA: Traffic Impact Assessment Table 1.1, the TIA has been prepared consistent with QLCSS guidance, with its associated key performance indicators, in order to ensure that mitigation measures determined for all public road-rail interface locations (level crossings) through the analysis process focus on safety, risk and operational efficiency. The QLCSS excludes private (occupational) crossings and crossings that are part of the cane rail network. These crossings, including any which may be accessible to the public, are a workplace health and safety matter and are managed under separate arrangements. The revised draft EIS documentation considers severance and fragmentation of rural properties outside of the TIA, within Chapter 8: Land Use and Tenure and Chapter 17: Social. Within these chapters it is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads. ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progress. In accordance with mitigation measures in Section 8.6 of Chapter 8: Land Use and Tenure, the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners would be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Where the proposal affects internal property access arrangements, input would be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC would consult with relevant property owners/occupants regarding alternative access arrangements, where feasible alternatives are available and identify feasible and reasonable measures to minimise impacts on existing operational arrangements/properties. During the property acquisition process, ARTC would seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include: <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. ARTCs approach to considering level crossing options is consistent with relevant Qld and ONRSR level crossing policies. While ONRSRs policy is that no new level crossings be constructed, it recognises that where a new crossing is necessary, safety risks must be eliminated or minimised by designing new infrastructure consistent with rail safety legislation. The Qld and ONRSR level crossing policies suggest that building new level crossings should be avoided wherever possible and all other options should be explored before a new crossing is proposed.	Chapter 8: Land Use and Tenure Section 8.6 Chapter 17: Social Appendix AA: Traffic Impact Assessment Table 1.1
145	145.0023	State Agency	Traffic and Transport		Three new road over rail bridges are proposed as listed in Table 5.11. Figure 5.10 shows typical Section with a clearance of 7.1 m between the rail track and underside of the bridge deck. At the technical agency briefing held by the COG on 10/02/2021, Chris Matthews advised that the project is based on trains and double stacked containers with a total height of 7.2 m. The EIS does not state the intended total height of the proposed trains and double stacked container freight.	Amend the EIS to clarify this discrepancy. Demonstrate how the proposed road bridge clearance over the railway corridor in Figure 5.10 will accommodate a design train height of 7.2 m clear of all bridge structure. Relevant standards also exist for required height clearances over railway corridors. These should be investigated with railway managers.	Chapter 5: Project Description Section 5.4.1, the revised reference design was developed as per the "Basis of Design" to provide consistent design requirements and parameters across the Inland Rail Program. The design criteria for road and pedestrian bridge structures over the rail line should have a clearance of 7.1 m to accommodate double stacked container freight. Please note the revised draft EIS has not amended its reference to 7.1 m clearance requirements within Figure 5.9 of Chapter 5: Project Description.	Chapter 5: Project Description Section 5.4.1 Figure 5.9
145	145.0024	State Agency	Surface Water		The project proposes interface and connection to the existing railway corridors (South Western Line and Millmeran Branch Line). A Stormwater Management Plan has not been provided to quantify the stormwater impacts of the proposed project/development and indicate how they are to be managed. The EIS and supporting documents should demonstrate how the project complies with PO16 to PO17 of the State Code 2: Development in a Railway Environment, PO10 to PO12 of the State Code 6: Protection of State Transport Networks of the State Development Assessment Provisions and Section 2.8 of the Guide to Development in a Transport Environment: Rail.	Amend the EIS to provide a Stormwater Management Plan demonstrating that the management of stormwater (quantity) post development/project can achieve a no worsening impact (on the pre-development/project condition) for all flood and stormwater events that exist prior to development/project and up to a 1% Annual Exceedance Probability (AEP). This should include at least the following flood and stormwater events: 63.2%, 50%, 39%, 20%, 10%, 5%, 2% and 1% AEP. Stormwater management for the project must ensure no worsening or actionable nuisance to the railway corridor, caused by peak discharges, flow velocities, water quality, sedimentation and scour effects. The report should also demonstrate that flood storage capacity is maintained on the site. Overland flow paths/hydraulic conveyance should be maintained on the site as part of the proposed project. In particular, the following should be addressed: <ul style="list-style-type: none"> Pre-development condition. Verify the existing drainage characteristics of the site, in relation to the railway corridor such as through a site detail and contour survey. All relevant legal points of discharge for the project site should be identified. Earthworks Plan. Provide an earthworks plan, including cross sections/elevations, and any required supporting technical details clearly showing the location and extent of proposed excavation and filling (earthworks), including likely volumes of cut and fill adjacent to the railway corridor and the resulting cut: fill balance. Catchment Analysis. Provide pre-development/project and post-development/project catchment plans that clearly identify all internal catchments on the site, external catchments draining into the site, the flow paths (direction of flow) within each catchment, the size of each catchment and the legal point of discharge for each catchment. Flood impact assessment. Incorporate the findings of the revised Hydrology and Flooding Technical Report Maintain the pre-development/project condition. The pre-development/project flow scenario will need to be replicated in the post development/project condition. The proposed development/project should not impede or interfere with any drainage, stormwater or floodwater flows, including sheet flows, from the railway corridor or vice versa. Retaining structures, filling/excavation, landscaping, buildings and structures or any other works to the land should be designed to include provision for drainage so as not to adversely impact on the railway corridor. The development/project design will need to address any concentration of flows, potential for back-up/ponding and scour/erosion which may undermine the railway corridor. Water quantity assessment. The peak discharge analysis should provide adequate details of the pre and post development/project impervious area of the site and give adequate consideration to the detention basin requirements of the QUDM, Fourth Edition. Conceptual drainage layout. Provide a conceptual stormwater drainage layout plan showing the proposed internal stormwater network on the site, including, drains, pits, dams, detention basins and the like, demonstrating how all surface water flows will be collected and conveyed to the legal points of discharge. This should include the conceptual design and sizing of drainage infrastructure such as but not limited to diversion drains. Mitigation measures. Include details of the mitigation measures proposed to address any potential stormwater and flooding impacts of the proposed development. The design flood peak discharges should be shown for the mitigated case to demonstrate there is no worsening impact on the railway corridor. All mitigation measures must be located on the site and not in the railway corridor. 	The impacts of nominated flood events during operation of the Inland Rail Project have been assessed and quantified as part of the Hydrology and Flooding Assessment, and reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Appendix T2: Hydrology and Flooding Technical Report - Volume 2, Chapter 13: Surface Water (Section 13.5.2) and Chapter 14: Flooding and Geomorphology of the revised draft EIS. Additional flood impact information in relation to existing railway corridors will be provided in the final EIS. In addition a Surface Water Management Plan will be developed as a component of the Construction Environmental Management Plan (CEMP), which will include Stormwater Management for the project. The Surface Water Management Plan will cover Stormwater Management and will be developed in consultation with DNRME and DES prior to implementation for construction.	Chapter 13: Surface Water Section 13.5.2 Chapter 14: Flooding and Geomorphology Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
145	145.0025	State Agency	Land Resources	Mitigation measures	The text in Table 6.6 (Chapter 6, Sustainability) indicates that batters 1:3 or less steep do not need to be vegetated, or that the vegetation of slopes steeper than 1:3 is not standard practice (however it is standard practice as per Transport and Main Roads Specifications - MRTS16 Landscape and Revegetation Works (MRTS16)). It is recommended that the EIS reevaluate the technical feasibility options to re-vegetate soil slopes steeper than 1:3.	Update the EIS to include the requirement to vegetate all soil or extremely weathered rock material in cuts and embankments to be vegetated as per MRTS16.	The intention of the statement in question was not to preclude vegetation of batters less than 1:3, but to emphasise the greater complexity of successfully revegetating slopes steeper than 1:3. To avoid confusion, this statement has been deleted from Table 7.6, Chapter 7: Sustainability (re-numbered since the release of the draft EIS). The use of vegetation and vegetation cover of soil has been identified as an effective erosion and sediment control method according to the erosion hazard assessment detailed in Section 9.6 of Chapter 9: Land Resources. Initial mitigation measures for land resources in Table 9.28 and Proposed land resource mitigation measures in Table 9.29 outline the use of vegetation cover as prescribed by the Soil Management Plan (see Chapter 24: Draft Outline Environmental Management Plan)	Chapter 7: Sustainability Table 7.6 Chapter 9: Land Resources Section 9.6 Table 9.28 Table 9.29 Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0026	State Agency	Land Resources		The intent of Table 6.6 is understood however, it indicates a misunderstanding on best practice amelioration methods as dispersive soils can be ameliorated using ag-lime, dolomite or ag-gypsum depending on the pH and other soil properties.	In the absence of any nominated ARTC standard, include the requirement for mapping or testing to determine the suitability and risks of the project's topsoils and subsoils as the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Amend the EIS accordingly.	ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at 1:10,000 scale in consultation with DoR (See Appendix E: Consultation Report Section 4.2 for Engagement with DoR). Soil management units from the investigation are provided in Section 3.2.2, Section 4.5 and Section 5.0. This level of investigation is sufficient to allow the determination of the suitability of the soils and to manage the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides site-specific soil management measures in Section 3.2 and Section 3.2 (also outlined in Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report 4.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.3 Appendix J: Soil Assessment Report Section 3.2.2 Section 4.5 Section 5.0
145	145.0027	State Agency	Traffic and Transport	Level crossing	Figure 19: 4a-f Project Construction Routes indicates that proposed construction routes will at least use the following existing railway level crossings on the following railway corridors. West Moreton Line <ul style="list-style-type: none"> Lane Road, Calvert (LXR 4243) Rosewood Laidley Road (Grandchester) (LXR:4240) John Street (Ipswich Rosewood Road) (LXR:4244) Karrabin Rosewood Road, Karrabin (LXR: 4252) Ebenezer Branch Railway Ipswich Rosewood Road (LXR 4255) Coopers Road Interstate Line Undullah Road Wyatt Road Beaudesert Boonah Road <p>However, Section 19.5.1.1 Existing rail crossings states: "There are currently no existing operational level rail crossings within the EIS investigation corridor that would be impacted. The traffic, transport and access study area consist of greenfield rail that will encompass new proposed level crossings. Therefore, no assessment is necessary for existing rail crossings as part of the project. In addition, Section 19.6.1.1 rail network states: "No existing operational level rail crossings within the EIS investigation corridor that would be impacted. Therefore, no assessment is necessary for existing rail crossings. The EIS has not assessed the potential safety impacts on existing railway level crossings on the roads identified through the primary construction transport routes during construction. There are approximately 9 railway level crossings along the primary construction routes used for haulage of materials during construction. The proposed project will increase road traffic, including heavy vehicles and overdimensional road loads over railway level crossings. No information has been provided which clearly identifies the potentially impacted railway level crossings or which demonstrates that the level of safety risk at the impacted railway level crossings is not worsened. This can only be demonstrated via ALCAM (Australian Level Crossing Assessment Model) assessments completed by the relevant railway manager using traffic information verified by the TMR region. Additionally, short stacking issues would need to be addressed. Evidence of such assessments has not been provided by the applicant. The safety impact on existing railway level crossings must be assessed before the application is decided. The commentary provided in the EIS displays a lack of understanding of safety issues at railway level crossings and should be deleted. TMR requires amendments the TIA and EIS to demonstrate how the project will comply with PO20 and PO24 of the State Code 2: Development in a Railway Environment, PO7 to PO9 of the State Code 6: Protection of state transport networks of the State Development Assessment Provisions and Section 2.2 of the Guide to Development in a Transport Environment: Rail for all impacted railway level crossings.</p>	Amend the EIS to identify the railway level crossings impacted upon by the construction routes and level of existing safety controls i. e. active or passive or grade separated road/rail. Also, address any short stacking issues at these existing railway level crossings due to limited clearances/queuing distance between the level crossings and intersections/access points. Amend the EIS wording in sections 19.5.1.1 and 19.6.1.1 to Several railway level crossings have been identified on the project construction routes Figures 19a to f. Development generated construction traffic has the potential to adversely impact on the safety of railway level crossings. Amend the EIS and TIA to demonstrate how the project will comply with PO20 and PO24 of the State Code 2: Development in a Railway Environment of the State Development Assessment Provisions and Section 2.2 of the Guide to Development in a Transport Environment: Rail. In particular, the following should be addressed: <ul style="list-style-type: none"> detail the expected traffic distribution on the road network as a result of the proposed development, including haulage routes during construction. Identify any and all railway level crossing/s likely to be impacted by project generated traffic (including construction and staff movements). This should include level crossings on local and state-controlled roads and any private (occupational) level crossings. for each impacted railway level crossing provide: <ul style="list-style-type: none"> (a) Australian Level Crossing Assessment Model the expected timeframe for the delivery of the proposed project including the commencement of construction and the completion of the development (including any stages), o existing traffic flows (expressed as vehicles per day) over the impacted railway level crossing/s, including daily (peak hour) fluctuations, and number and percentage of heavy vehicles and buses, o the expected background traffic growth (expressed as vehicles per day) over the impacted railway level crossing/s, including the number and percentage of heavy vehicles and buses. This should include background traffic growth from the anticipated commencement of construction and each project stage to a ten-year horizon. o the expected development generated traffic (expressed as vehicles per day), including daily fluctuations (peak hour) and percentage of heavy vehicles and buses, that will pass over the impacted railway level crossing/s from the commencement of construction, and each development stage to a ten year design horizon. It is noted that workers may be transported via bus from workers camps. o the maximum size and type of vehicle (including length, width, height and weight) anticipated over the impacted railway level crossing/s as a result of the project during construction and on-going operation (including any stages). This should include any over-mass and over-dimension vehicles used to transport components. the following data Table should be populated for each impacted railway level crossing: 	Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Appendix AA: Traffic Impact Assessment Section 5.8 specifically details the 17 existing level crossings that are located along the proposed construction transport routes. These level crossings are provided in Table 5.66 along with their associated LGA level crossing type and status during construction. For the purpose of the TIA, it is assumed that two sections of the South Western System are proposed to be closed for the duration of construction, including: <ul style="list-style-type: none"> Millmerran Branch Line, between Wymeera and Millmerran South Western Line, between Whetstone and Goodwindi. <p>The majority of existing level crossing locations will not be operational during the construction of the Project, therefore it is considered that current road users will experience a higher level of service at these locations. There are, however, three locations which remain operational during construction, Cunningham Highway (Whetstone) active level crossing, Coolmunda Dam Access Road (Coolmunda) passive level crossing, and Alderley Street (Toowoomba) active level crossing. Prior to the use of these roads and associated level crossings by construction traffic, further consultation with the existing railway manager (QR) will be required in order to mitigate potential impacts. This consultation and engagement will be required during the Detailed Design stage, prior to and during construction. This will include consultation on adequate traffic and safety management plans for the level crossings. Furthermore, access into the existing rail corridor at these locations during construction will also need to be managed in consultation with QR and the relevant LGA. During detailed design, further assessment will be required in order to determine whether the existing level crossing treatments are sufficient for the increased traffic volumes.</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Table 5.66
145	145.0028	State Agency	Traffic and Transport	Level crossing	Continuation from above.	(b) Short stacking Development generated traffic must not worsen vehicular queuing (short stacking) issues over impacted railway level crossing/s. In particular, provide the following for each impacted railway level crossing: <ul style="list-style-type: none"> o Demonstrate that there is sufficient clearance between each railway level crossing and the relevant intersection/vehicular access location to allow the maximum size of vehicle used in the operation to queue. The minimum clearance should be 5 m from the edge running rail (of the closest railway track) as per Section 5.4 "Short Stacking and Figure 3.2" Yellow Box Marking of AS1742.7:2016 Manual of Uniform Traffic Control Devices, Part 7: Railway plus the length of the maximum design vehicle. o Provide a plan accurately showing the available clearance between the railway level crossing and relevant intersection/access point and demonstrate how the maximum vehicle length can be accommodated with the 5 m setback from the closest track. Additionally, the vehicle must not encroach on any safety controls, such as not limited to pavement marking (for example, box marking), for the railway level crossing or road. o Provide a RPEQ certified swept path analysis based on the maximum design vehicle for turns into and out of the railway level crossing. o Over-dimensional Road Loads (Queensland Rail): Under the Transport Infrastructure (Rail) Regulation 2006 permission from the Railway Manager (Queensland Rail) is required to take over-dimensional road loads across Queensland Rail infrastructure (e.g. rail level crossings and rail bridges). Further information can be obtained from Queensland Rails website at: queenslandrail.com.au/forbusiness/overdimensionalloads 	As described in Section 3.6.2 of Appendix AA: Traffic Impact Assessment, the revised reference design has been developed to prevent short stacking issues with the Project's alignment. Short stacking issues have been avoided through development of the design in greenfield areas to ensure minimum 60 m separation distance between the outer rail of the Project alignment and the centreline of the nearest parallel road, which is compliant with Section 5.4 of AS 1742.7:2016 and with the Manual of Uniform Traffic Control Devices Part 7: Railway Crossings (DTMR, 2019b). Suitable short-stacking distances were also achieved in brownfield locations; however, this required a combination of horizontal rail alignment changes and road realignments, whilst balancing impacts to surrounding land use and infrastructure constraints. The available short stacking at each level crossing, and the largest design vehicle accommodated is summarised within Section 5.9.3 of Appendix AA: Traffic Impact Assessment. Short stacking will continue to be assessed during design development. Design drawings showing available clearances can be provided to all road managers to demonstrate compliance with relevant standards, at the appropriate design review milestone.	Appendix AA: Traffic Impact Assessment Section 3.6.2 Section 5.9.3
145	145.0029	State Agency	Land Use and Tenure		The EIS provides minimal information regarding the functionality of at-grade crossings for stock routes, given there is an intensification of train movements and any form of mitigation offered at those crossings, if any. The ToR requires the EIS to describe the potential impact of the construction and operation of the project on existing land uses permitted along the proposed alignment and adjacent areas including stock routes.	Update the EIS to provide further detail as to the functionality of at-grade crossings for stock routes and any form of mitigation proposed at these crossings.	The Project interfaces with the State stock route network, which consists of stock routes and reserves, in 11 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route. The stock route interface treatments that have been included in the reference design are summarised in Chapter 8 Land Use and Tenure, Section 8.5. ARTC will continue to consult with DoR, GRC and TRC through the detailed design process to ensure that the proposed stock route interface treatments are suitable for future useability purposes. Chapter 8: Land Use and Tenure, Section 8.6 states that consultation has taken place between ARTC, DoR, and GRC with respect to redesign and management of stock routes following the construction of the Project. Where the existing stock route crossings are impacted by the Project, at-grade, then level crossings will be provided. All level crossings will be designed to meet the current Australian, ARTC and road managers standards. Design features include, minimum 7.3 m stock crossing width, compliant sighting distances, crossing panels, warning signage, fencing and gates across the road approaches, but not across the tracks. Where the alignment is proposing to run linearly through an existing stock route, allowances have been made to widen the remaining route appropriately to ensure a corridor that is fit for the purpose of transport livestock. The revised reference design for the Project has endeavoured to maintain the integrity (connectivity and functionality) of the stock route network. In circumstances where the Project has the potential to impact on existing stock routes, ARTC has consulted with DoR, GRC and TRC to identify potential solutions for the treatment of rail and stock route interfaces. Outcomes of the several engagements have been summarised in Appendix E: Consultation Report and Appendix B2: Stock Routes. Chapter 8: Land Use and Tenure, Section 8.6.3 states that in the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner.	Chapter 8: Land Use and Tenure Section 8.5 Section 8.6 Section 8.6.3 Appendix B2: Stock Routes Appendix E: Consultation Report Section 5.5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0030	State Agency	Land Use and Tenure		The EIS states that some of the existing stock routes, where grade separation is not proposed, intend to remain as passive crossing locations. Limited detail is offered as to the functionality of passive at-grade crossings for stock routes given an intensification of train movements and any form of mitigation offered at those crossings, if any. The ToR requires to describe the potential impact of the construction and operation of the project on existing land uses permitted along the proposed alignment and adjacent areas including stock routes.	Update the EIS to provide further detail as to the functionality of passive at-grade crossings for stock routes given an intensification of train movements.	This issue is noted. Further information on the functionality of at-grade crossings has been included in Section 8.5.1 of Chapter 8: Land Use and Tenure and Appendix B2: Stock Routes. ARTC will continue to work collaboratively with DoR, TMR and council on the design solution for these locations during detailed design. The Project interfaces with the State stock route network, which consists of stock routes and reserves, in 11 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route. The stock route interface treatments that have been included in the reference design are summarised in Chapter 8: Land Use and Tenure, Section 8.5. ARTC will continue to consult with DoR, GRC and TRC through the Detailed Design stage to ensure that the proposed stock route interface treatments are suitable for future useability purposes. Chapter 8: Land Use and Tenure, Section 8.6 states that consultation has taken place between ARTC, DoR, and GRC with respect to redesign and management of stock routes following the construction of the Project. Where the existing stock route crossings are impacted by the Project, at-grade, then level crossings will be provided. All level crossings will be designed to meet the current Australian, ARTC and road managers standards. Design features include, minimum 7.3 m stock crossing width, compliant sighting distances, crossing panels, warning signage, fencing and gates across the road approaches, but not across the tracks. Where the alignment is proposing to run linearly through an existing stock route, allowances have been made to widen the remaining route appropriately to ensure a corridor that is fit for the purpose of transport livestock. The revised reference design for the Project has endeavoured to maintain the integrity (connectivity and functionality) of the stock route network. In circumstances where the Project has the potential to impact on existing stock routes, ARTC has consulted with DoR, GRC and TRC to identify potential solutions for the treatment of rail and stock route interfaces. Outcomes of the several engagements have been summarised in Appendix E: Consultation Report and Appendix B2: Stock Routes. Chapter 8: Land Use and Tenure, Section 8.6.3 states that in the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner.	Chapter 8: Land Use and Tenure Section 8.5 Section 8.6.3 Appendix B2: Stock Routes Figures 1 - 26 Appendix E: Consultation Report Section 5.5.3
145	145.0031	State Agency	Landscape and Visual Amenity		The EIS is not clear regarding who is responsible for long term maintenance of the general landscaping vegetation including the landscaping installed at the rest area in Yelarbon.	Amend the EIS to clarify who is responsible for long-term maintenance of landscaping and vegetation.	ARTC, as the proponent for the Project retains overall responsibility for the Project, including implementing the Project to achieve the environmental outcomes, and comply with all laws and Project obligations, and responsible for monitoring, reporting and auditing the delivery and implementation of the Project in relation to the Construction Environmental Management Plan (CEMP) and Operations EMP.	Chapter 5: Project Description Section 5.8.4 Chapter 10: Landscape and Visual Impact Assessment Section 10.6.2 Table 10-76
145	145.0032	State Agency	Flora and Fauna		There is no requirement for ARTC to identify and assess the project soils as per the TMR Interim SMM, SMM Appendix 2 soil forms, TMR Soil Group classifications and CSIRO Clay Mineralogy Maps. Additionally, this should be undertaken by a Certified Professional Soil Scientists (CPSS) as per TMRs interim SMM.	Amend the EIS to include the requirement for mapping or testing to determine the suitability and risks of the project's topsoils and subsoils as the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps and to meet the requirements of MRTS16.	ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at 1:10,000 scale in consultation with DoR. Soil management units from the investigation are provided in Section 4.5. This level of investigation is sufficient to allow the determination of the suitability of the soils and to manage the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides site-specific soil management measures in Section 3.3 (also outlined in Chapter 24: Draft Outline Environmental Management Plan).	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.3 Appendix J: Soil Assessment Report Section 4.5 Figure 3.16
145	145.0033	State Agency	Air Quality	Modelling	Chapter 12 does not provide a clear indication of whether the project has considered emissions from the following cumulative sources: <ul style="list-style-type: none"> Existing Rail Line West of Chainage ~30 NS2B Existing Rail Line East-Northeast of Chainage ~45 Existing Rail Line East of Chainage ~162 Existing Rail Line Northwest of Chainage ~207 Road traffic pollutant emissions have not been modelled for the study area. 	Update the EIS (including Appendix R) to consider the cumulative impacts from rail and road traffic as per the requirement of the ToR. Provide justification as to why the selected background pollutant levels are representative of sensitive receptors (in the vicinity of existing roads) including those within townships.	To ensure that cumulative air quality impacts are assessed, one kilometre of the North Star to NSW/QLD Border Project and the Gowrie to Helidon Project rail sources and 3.5 kilometres of the West Moreton Line have been included in the dispersion modelling at their respective ends of the Project. Other existing rail lines near the Project alignment have not been modelled, but rail traffic volume data for other existing rail lines (i.e. existing rail alignments near Project chainage 30 kilometre (km), 45 km, and 162 km) were analysed for the years 2016 to 2018. Existing monthly traffic volumes for these rail lines ranged from less than 1 train per week to up to 6 trains per week. Compared with the 174 trains per week (peak) that have been assessed for the Project's air quality impact assessment, these volumes represent a very small percentage (i.e., 0.6 to 3.6 per cent) of the overall modelled rail traffic. It is considered that inclusion of these rail sources would not result in an observable change to predicted cumulative results. Therefore, the air quality modelling impact assessment has not included these existing rail lines. Road traffic emissions from sections of the Gore Highway and Warrego Highway within 2 kilometres of the alignment were included in the dispersion model for the assessment of the operation stage of the Project. The methodology for estimating and modelling emissions from the Warrego Highway and Gore Highway represents a conservative approach and is likely to over-predict pollutant concentrations from traffic on these roads. Further discussion of the assessment of cumulative impacts from existing rail lines and roads is provided in Chapter 23: Cumulative Impacts. Background pollutant levels have been adopted following a review of monitoring station data. Four stations were reviewed, including Queensland Government's Department of Environment and Science (DES) operated stations located at Mutdapilly (90 km east of the alignment) and Springwood (135 km east of the alignment), and two Inland Rail monitoring stations located at Charlton (Inland Rail AQMS, 0.1 km south of the alignment) and Millmerran (Millmerran AQMS, 0.4 km north of the alignment). The monitoring stations considered in the assessment are considered to provide representative data on air quality for the study area, noting that the Inland Rail AQMS and Millmerran AQMS are within the study area. Although the Mutdapilly and Springwood stations are located further from the alignment, the stations are located in areas which are representative of the study area, or are considered to be a conservative representation. For example, Springwood is located in a more urban area with more emission sources than the study area, and therefore adopting background concentrations from this monitoring station will provide a conservatively high estimate of ambient pollutant concentrations, including for receptors which may be located near minor roads. Noting that major roads (Gore Highway and Warrego Highway) have been considered in detail in the assessment. Chapter 12: Air Quality and Appendix R: Air Quality Technical report have been updated for the described changes.	Chapter 12: Air Quality Appendix R: Air Quality Report
145	145.0034	State Agency	Air Quality		Section 11.7.5. has not included any approved developments within the study methodology area.	Update the EIS (including Appendix R) to include approved developments as sensitive receptors and revise the assessment as per the requirement of the ToR.	Approved developments (e.g. residential sub-divisions) that may in future become sensitive receptor locations have been reviewed and included in the revised air quality assessment. The sensitive receptors included in the assessment are presented in Section 12.4.5 in Chapter 12: Air Quality and potential air quality impacts are presented in Section 12.5. Appendix R: Air Quality Technical Report has also been updated.	Chapter 12: Air Quality Section 12.4.5 Section 12.5 Appendix R: Air Quality Technical Report
145	145.0035	State Agency	Air Quality	Modelling	Section 11.7.5 states that predicted pollutant levels are taken to be 0 m above ground but does not provide justification regarding the selected model sensitive receiver height.	Update the EIS to include further justification on the selected model sensitive receiver height given: <ul style="list-style-type: none"> the heights of roofs for drinking water assessment, guidance available in other transport related manuals (e.g. Road Traffic Air Quality Management Manual) which include receiver heights of 1.8 m above ground for ground level receivers. As a minimum provide the likely differences of higher receiver heights versus the selected receiver height. 	Section 12.4.5.2 of Chapter 12: Air Quality has been updated to include discussion and justification of the use of 0 metre (ground level) as the receptor height for sensitive receptors included in the dispersion model for the assessment of the Operations stage. Discrete receptor points have been included for sensitive receptors and have been modelled at ground level (0 metres above ground) as per the requirements of the Queensland Government's Department of Environment and Science guideline <i>Application requirements for activities with impacts to air</i> (2023). In addition to the discrete receptors, grids of receptors have been included in the modelling (at a height of 0 metres above ground) to facilitate the generation of (air emission) concentration contours. It is standard (air quality) industry practice to represent predicted impacts at sensitive receptors at ground level and to determine ground-level concentrations (GLCs). This is stated in several State government air quality modelling guidelines, including the NSW EPA <i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales</i> (2022), the South Australia (SA) EPA <i>Ambient Air Quality Assessment Guidelines</i> (2016), and the Victorian EPA (Vic EPA) <i>Guideline for Assessing and Minimising Air Pollution in Victoria</i> (Vic EPA, 2022). For air quality dispersion modelling, the difference in predicted concentration levels between receptors at 0 metres and small heights above ground level (e.g.1.8 metres) is minor in magnitude. This is different to other environmental modelling (e.g. noise) where height above ground has a more significant impact due to the strong influence of line of sight, and travel path distance. Additionally, dust deposition (on ground) results can only be predicted at ground level (0 metres above ground) (Chapter 12: Air Quality, Section 12.4.5.2).	Chapter 12: Air Quality Section 12.4.5.2
145	145.0036	State Agency	Air Quality		Given coal could potentially be transported on the network a Coal Dust Management Plan should be required as part of the mitigation strategy and ongoing requirements.	Update the EIS (including Appendix R and Chapter 22) to ensure a Coal Dust Management Plan is required as part of the mitigation strategy and ongoing requirements.	Coal is not currently proposed to be transported along the proposed Border to Gowrie section. If coal is to be transported in future operation years, the potential for coal dust generation will require management via a Coal Dust Management Plan (CDMP). The measures included in the CDMP will aim to minimise surface lift-off of materials in transit and establish protocols to minimise spillage onto external areas of wagons. The plan will be prepared in consultation with the relevant regulatory agency at the time. The requirement for a CDMP is included in the mitigation measures for the Project. Updates have been made to Section 12.6.2 in Chapter 12: Air Quality with further information on how fugitive emissions from residual coal dust deposits on empty wagons will be mitigated. ARTC presently have no foreseeable market-driven demand for coal to be transported on the Inland Rail network between NSW/QLD border to Gowrie. However, should this change during operations in the future, the potential for coal dust generation would require management by a CDMP. Should coal planned to be transported as part of future operations, prior to transportation of coal, engagement would be undertaken with existing stakeholders and members of the South West Supply Chain regarding coal dust management and monitoring requirements necessary to maintain the integrity of the existing South West Supply Chain Coal Dust Management Plan (2019). This is discussed in Section 12.6.2 in Chapter 12: Air Quality.	Chapter 12: Air quality Section 12.6.2
145	145.0037	State Agency	Surface Water	Overland flow/diversion	It is unclear if the hydrology modelling has consideration water storage/dams (e.g. Turkey's Nest) on downstream private properties which are built to catch rain/surface run off water. The collected water from these dams is utilised for agricultural purposes and as water for stock. Councils also access these seasonal dams for road maintenance purposes.	Update the EIS to investigate and confirm that this impact has been considered and mitigated or minimised.	Hydrologic modelling has not specifically been considered at a local dam/water storage level. Existing flow paths however have been considered and maintained in the revised reference design.	N/A
145	145.0038	State Agency	Groundwater	Construction water supply	It is unclear what the projects percentage reliance on groundwater versus other sources of water for construction purposes like dam, creeks, etc. It is unclear if there is an intention to drill boreholes to extract water for construction purposes. The use of town water for construction purposes is not a sustainable practice. Construction water quality standards are much lower compared to potable town water. Sourcing of town water from smaller regional towns would be a challenge and water may need to be carted over long distances.	Update the EIS to confirm overall water data required for construction purposes including groundwater, bore water, town water and haulage.	The construction water strategy outlined in Chapter 5: Project Description Section 5.6.24 for the Project has been updated to reflect amendments to the reference design, stakeholder feedback received during consultation and from submissions on the draft EIS, as well as advances made in planning for construction of the Project. Revised details are provided in the revised draft EIS regarding: <ul style="list-style-type: none"> Estimated volumes required, by activity The quality of water required for various tasks The sourcing of water, including reliability and access considerations Monitoring of the take and usage of water. The sourcing of water will vary and be dependent on the location of need and the intend purpose of use. In each instance, construction water will be purchased from existing licenced sources that have capacity within the limits of the current licenced entitlement/allocation (Chapter 5: Project Description Section 5.6.24). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements. Both Toowoomba Regional Council and Goondiwindi Regional Council have advised through consultation and feedback on the draft EIS that potable water from their networks is not available for use by the Project. Consequently, there is no intention to obtain potable water from Toowoomba Regional Council and Goondiwindi Regional Council sources. Instead, potable water for accommodation facilities and concrete batching will be obtained from potable networks within other LGAs, commercial bulk suppliers or from non-potable sources and subjected to treatment. Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS) (Chapter 5: Project Description Section 5.4). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable. The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
145	145.0039	State Agency	Flooding	Increase in peak water levels	Table 12.8 of the report identifies flood impact objectives and allows 100 mm of water overtopping of roadways- 100 mm overtopping of state-controlled roads and railways has not been accepted by TMR and is inconsistent with TMRs no net-worsening policy position for state-controlled transport infrastructure.	Revise the Project and EIS to ensure that the hydrological impacts are consistent with TMRs no net-worsening policy. TMR will not accept a worsening scenario. Therefore, further mitigation measures such as additional cross drainage structures or raising of the existing road by the Project is required to reduce the impact. Flood resilient pavements would need to be designed and constructed depending on the location.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment. Flood Impact Objectives (FIO) have been agreed with the Expert Flood Panel, to provide a 10-20 mm change in peak water level target on State-controlled roads (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads >10 mm have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter (Sections 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 4.2 Section 5 - 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0040	State Agency	Flooding	Increase in peak water levels	In addition, the EIS has identified several locations using flood modelling where the project creates an increase in inundation depth at existing state-controlled roads. It is also unclear if the EIS has considered the effects of increased velocities and its impact on roads in terms of erosion and flood damage. Are there recommendations to construct flood resilient pavements where an increase in velocities is anticipated?	Amend the objective in the EIS to no net worsening for state transport infrastructure.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as detailed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment. Flood Impact Objectives (FIO) have been agreed with the Expert Flood Panel, with velocity targets provided based on sealed and unsealed surfaces. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. Velocity FIO targets can be found in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Changes in velocity to State-controlled roads has been identified with a summary of this assessment provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5 - 17
145	145.0041	State Agency	Flooding	Modelling	Regarding the Westbrook Creek, it is unclear whether the recent development around Wellcamp has been captured to a suitable detail, to determine whether it has an impact on the hydrology in this region. Additionally, it may be that the Toowoomba Cecil Plains Road should be raised and protected from inundation and excess velocities.	Office of the Coordinator-General seek confirmation as to whether this level of information is adequate and meets the requirements of the ToR.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 4.11 of Chapter 14: Flooding and Geomorphology. Additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping included within the revised draft EIS provides more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results and further discussion of results. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Further consultation with DTMR has helped to shape the updated set of FIOs. The road impact assessment will be revisited and updated in line with the revised FIOs and included in the final EIS.	Chapter 14: Flooding and Geomorphology Section 14.10.1 Table 14-117 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5 - 17
145	145.0042	State Agency	Surface Water	Baseline/background sampling	Regarding the Surface Water Management Plan, it is unclear how a 12-month baseline monitoring exercise will be undertaken if construction is anticipated to commence mid-2021. Using the anticipated timelines identified by ARTC there is likely to be insufficient time to establish a baseline unless it is happening already.	Update the EIS to confirm timing of works with the baseline monitoring.	The anticipated timing of stages for the Project have been revised since the draft EIS and are presented in Section 5.3.6 of Chapter 5: Project Description. The revised draft EIS has been updated to include an additional 12 months of surface water data collected from December 2020 to November 2021, in addition to the data collected from June 2018 to May 2019. This monitoring has enabled interim site-specific WQOs to be derived. Additional water quality sampling will be conducted before commencement of construction to enable full calculation of site-specific WQOs, reflective of current climatic conditions, as a revision to the interim site-specific WQOs. The data that has been collected is evaluated and presented in the revised draft EIS in Appendix S: Surface Water Quality Technical Report, Sections 3.1.2 and 5.2, and Chapter 13: Surface Water, Section 13.3.3 and 13.4.5.	Chapter 5: Project Description Section 5.3.6 Chapter 13: Surface Water Section 13.3.3 Section 13.4.5 Appendix S: Surface Water Quality Technical Report Section 3.1.2 Section 5.2
145	145.0043	State Agency	Flooding	Increase in time of submergence	Section 12.10.2.2 asserts that the amenity of Toowoomba Cecil Plains Road is not being detrimentally impacted. However, if the depth and time of submergence on the Toowoomba Cecil Plains (sic) Road is increasing due to the project, as suggested in this section, is being detrimentally impacted.	Update the EIS to correctly identify that Toowoomba Cecil Plains Road is being detrimentally impacted and identify any additional mitigation measures required.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5 - 17
145	145.0044	State Agency	Flooding	Increase in time of submergence	Chapter 12 indicates that the change in Average Annual Time of Submergence (AAToS) on the Gore Highway is only 0.4 hours per year. However, up to 12 hours additional time of submergence during a 1% AEP event is significant and should be mitigated against.	Consistent with TMRs approach, the project should be achieving a no net-worsening outcome for flooding impacts to the state-controlled road. Therefore, the EIS should be updated to ensure hydrological impacts on the Gore Highway are adequately mitigated.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0045	State Agency	Flooding	Mitigation measures	Chapter 12 suggests that Millmeran-Leyburn Road being cut by floodwaters is insignificant because the Millmeran-Inglewood Road is also cut. However, access needs to be maintained for the railway.	Update the EIS/project to ensure that hydrological impacts are adequately mitigated for Millmeran Leyburn Road.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0046	State Agency	Flooding	Mitigation measures	It is unclear from the text of Chapter 12 whether impacts to Millmeran-Inglewood Road as a result of Back Creek and Brimally Creek have been considered and appropriately mitigated.	Update the EIS/project to ensure that hydrological impacts are adequately mitigated for Millmeran Inglewood Road.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0047	State Agency	Flooding		The Cunningham Highway and Cunningham Highway North both appear to be affected by increased flooding. Also, access to Yelarbon must be maintained for emergency purposes, presumably the connection with Goondiwindi.	ARTC should continue to work with relevant stakeholders to ensure that access to Yelarbon is adequately maintained and update the EIS accordingly.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0048	State Agency	Groundwater	Baseline/background sampling	Section 13.5.4 indicates that only one round of groundwater sampling was conducted. It is unclear whether other water quality data has been assessed from other available records.	Update the EIS to confirm that sufficient water quality sampling has been undertaken to establish a baseline and satisfy the requirements of the ToR.	Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (see Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. Chapter 15: Groundwater, Section 15.7.3 details the proposed groundwater management and monitoring program (GMMP) for each Project stage and has been updated as part of the revised draft EIS. It is further noted that publicly available groundwater data has been considered in conjunction with the data gathered from the Project specific bores and included in the revised draft EIS Chapter 15: Groundwater, Section 15.3.2.	Chapter 15: Groundwater Section 15.3.2 Section 15.4.2 Section 15.4.4 Section 15.7.3
145	145.0049	State Agency	Groundwater	Survey effort/field investigation data	The groundwater irrigation value in Table 13.9 Summary of Environmental Values and Water Quality Objectives refers to threshold salinity tolerances in the Section 4.2.4 of the ANZECC/ARMCANZ Guideline 2018. These referenced guidelines uses EC _{se} (electrical conductivity of saturated soil) and it is possible that the Electrical Conductivity (EC) of the registered bores in the impact assessment area are reported using EC _{1.5} . This is important to qualify as there is considerable difference in the tolerance values due to the conversion factor between the classification schemes. Refer to Section 8.3 of the TMR Interim SMM for details.	Amend the EIS clarify the EC classification schemes for EC testing.	The submitters concern is noted. Revised draft EIS Table 15-9 of Chapter 15: Groundwater has been updated accordingly.	Chapter 15: Groundwater Table 15-9
145	145.0050	State Agency	Groundwater	Contaminated land	Table 13.15 states that Possible Acid Sulphate Soils (PASS) is a risk to the project through sulphide-bearing rocks in cuts or the use of sulphide-bearing materials in the embankment fill. This statement is inconsistent with the Spoil Management documents where ARTC predicts no Acid Sulphate Soils or PASS are likely to be encountered.	Confirm whether ASS and PASS are expected to be encountered and update the relevant EIS chapters as required.	PASS is listed as a risk as there is potential for PASS or sulphide-bearing rocks to be encountered during works; however, technical study findings to date indicate the level of risk is very low. Table 15.17 of revised draft EIS Chapter 15: Groundwater has been updated to provide extra information on the likelihood of PASS impact section. ARD and PASS have been presented in two separate rows to minimise confusion between the two.	Chapter 15: Groundwater Table 15.17
145	145.0051	State Agency	Groundwater		Table 13.15 states that Unweathered areas of the Kumbarella Beds will be avoided where possible, through the detail design phase. Considering that the alignment will be largely locked-in by the detail design stage, it is unclear how the Kumbarella Beds will be avoided.	Update the EIS to confirm how Kumbarella Beds will be avoided.	Geology within the Project footprint indicates a potential for the Kumbarella Beds and WCM to host disseminated sulphide minerals (i.e. pyrite), particularly within shale and mudstone units. Given that cuts will primarily be into the weathered to extremely weathered portions of the Kumbarella Beds and WCM, the risk would be naturally mitigated as sulphides minerals may have already been oxidised. The revised draft EIS has been updated with the final alignment and to clarify potential risk relating to intersecting the Kumbarella Beds, see Chapter 15: Groundwater, Section 15.7.4 (Table 15-23). The Detailed Design stage will allow for updates and changes to the design as required to minimise impacts identified in the revised draft EIS.	Chapter 15: Groundwater Section 15.7.4 Table 15-23

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0052	State Agency	Groundwater		The EIS refers to potential impacts that are considered temporary, in particular deep cuts that will likely impact groundwater which will occur for the life of the project. It is recommended the EIS be revisited to consider what is temporary and what are permanent considering the period in which the impacts are to occur.	Update the EIS to confirm what are the actual long-term impacts of the project, as some temporary impacts are actually permanent impacts.	Predictive groundwater modelling was undertaken to evaluate the potential seepage rates for deep cuts with potential to intersect groundwater. The results of the predictive modelling is presented in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3. The impact of deep cuts on groundwater is generally expected during the Construction Works stage (i.e. short-term), as it is anticipated that groundwater seepage into cuts will be minimised following installation of engineering controls. Appendix U: Groundwater Technical Report, Section 3.2 presents the terminology and definition as applied for this Project, for example, Table 3.3 (Appendix U: Groundwater Technical Report) details the timeframes applied to the terms temporary, short-term, medium term and beyond. Geotechnical and hydrogeological investigations and assessment of potential drainage/dewatering impacts associated with the deep cut sections are ongoing with further consideration to be undertaken as part of the Detailed Design stage. Section 15.6.4 of Chapter 15: Groundwater presents the long-term (i.e. Operations stage) predicted impacts on groundwater. While the impacts are considered to be most significant during construction, any impacts that remain into operation will be reduced as groundwater levels are likely to re-establish at a new level after the cuts have been constructed.	Chapter 15: Groundwater Section 15.6.2 Section 15.6.4 Appendix U: Groundwater Technical Report Section 3.2 Section 6.3 Table 3.3
145	145.0053	State Agency	Groundwater	Monitoring	Section 13.8.3.1 states that the Groundwater Monitoring and Management Plan will be developed and implemented during the detail design stage. This may be difficult to be achieved as construction is scheduled to start in 2021. It is unclear if there will be enough time to monitor and create a baseline that will be long-enough to detect trends. Clearing has been acknowledged to create evapotranspiration.	Update the EIS to include more realistic timeframes and consider the development of a Groundwater Monitoring and Management Plan before detailed design. Amend Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments as needed.	Construction of the Border to Gowrie Section is no longer scheduled to start in 2021. This was the predicted schedule when the draft EIS was being prepared and has since been revised. Chapter 5: Project Description, Section 5.3.6 has been updated with revised Project timeframes. Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (see Chapter 15: Groundwater, Section 15.4.2-15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. Revised draft EIS Chapter 15: Groundwater, Section 15.7.3 details the proposed groundwater management and monitoring program (GMMP) for each Project stage and has been updated as part of the revised draft EIS.	Chapter 5: Project Description Section 5.3.6 Chapter 15: Groundwater Section 15.4.2 Section 15.4.3 Section 15.4.4 Section 15.7.3
145	145.0054	State Agency	Groundwater		Table 13.21 provides a score (high, moderate, low) for initial significance and residual significance for existing bores (registered and non-registered). It is unclear what criteria is being used to score the residual significance as low.	Update the EIS to confirm what quantitative values/criteria were to assess the significance and determine the scores provided in Table 13.21.	Potential impacts to groundwater values associated with construction and operation of the Project are outlined in Section 15.6.3 and Section 15.6.4 respectively of Chapter 15: Groundwater. These impacts have been subjected to significance assessment as per the methodology introduced in Chapter 4: Assessment Methodology, Section 4.4 and described in Chapter 15: Groundwater, Section 15.3.2. Appendix U: Groundwater Technical Report, Section 3.2 presents the terminology and definition as applied for this Project, for example, Table 3.4 (Appendix U: Groundwater Technical Report) details the sensitivity criteria applied to the terms negligible, low, medium, etc. The initial impact assessment assumes that the design considerations (or initial mitigation measures) factored into the reference design stage (refer Table 15.19, Chapter 15: Groundwater) have been implemented. Additional mitigation and management measures (refer Table 15.20, Chapter 15: Groundwater) were then applied, as appropriate, to future stages of the Project to reduce the level of potential impact and derive a residual significance of impact. The initial and residual significance of potential impacts are presented in Table 15.23 to demonstrate the effectiveness of mitigation measures. Section 3.2 of Appendix U: Groundwater Technical Report also details the criteria and methodology.	Chapter 4: Assessment Methodology Section 4.4 Chapter 15: Groundwater Section 15.3.2 Table 15.20 Table 15.23 Appendix U: Groundwater Technical Report Section 3.2 Table 3.4
145	145.0055	State Agency	Air Quality	Monitoring	Dust monitoring would need to be completed when undertaking construction works, particularly in urban/semi-urban areas like Yelarbon, Brookstead, Pampas and generally at construction sites.	Update the EIS to require dust monitoring during construction activities at a minimum.	Dust deposition monitoring will continue to be conducted during the active period of construction in proximity to the Commodore Mine, at locations where baseline data was collected (refer above), to determine if construction activity is resulting in significant dust impacts. Dust deposition monitoring will be undertaken in accordance with AS/NZ 3580.10.1:2016 – Method 10.1: Determination of particulate matter - Deposited matter - Gravimetric method (Standards Australia and Standards New Zealand, 2016). The results of Construction Works stage dust deposition monitoring will be included in construction environmental reporting, as specified in Chapter 24: Draft Outline Environmental Management Plan (Chapter 12: Air Quality, Section 12.7.2). In addition to air quality monitoring near the Commodore Mine, dust deposition monitoring will also be undertaken in urban and semi-urban areas including, but not limited to, the areas of Ingleswood, Yelarbon, Pittsworth, Brookstead, Pampas and Gowrie Mountain. These more urban areas are of higher sensitivity for air quality impacts due to the increased density of sensitive receptors located near construction activity areas and associated dust emission sources. The monitoring locations used for the baseline monitoring (Section 12.7.2.2) will be maintained if land access agreements allow. Where new locations are required, the locations for monitoring in urban and semi-urban areas will be determined after detailed design has commenced. (Chapter 12: Air Quality, Section 12.7.2). Recommendations for air quality monitoring during the Construction Works stage are provided in Section 12.7.2 of Chapter 12: Air Quality. The recommended mitigation and management strategies, including monitoring, will be included in the Construction Environmental Management Plan (CEMP) for the Project. Prior to the start of construction, an Air Quality and Dust Management Plan will be developed as a component of the CEMP. This Air Quality and Dust Management Plan will include commitments and requirements for air quality monitoring, including dust deposition monitoring, real-time dust monitoring, reporting and the complaints and resolution process (Chapter 12: Air Quality, Section 12.7.2). Further information on the proposed mitigation measures, including monitoring, is provided in Section 12.6 of Chapter 12: Air Quality.	Chapter 12: Air Quality Section 12.6 Section 12.7.2
145	145.0061	State Agency	Noise and Vibration	Operational rail noise	Table 14.22 is missing TMRs Interim Guideline - Operational Railway Noise and Vibration (March 2019) ground borne noise criteria for Court of Law (court reporting and transcript areas, Judges chambers).	Update the EIS and including Appendix (Appendix T) to include TMRs Interim Guideline - Operational Railway Noise and Vibration (March 2019) ground borne noise criteria for Court of Law (court reporting and transcript areas, Judges chambers).	The EIS has been amended to include the Department of Transport and Main Road's (DTMR) Interim Guideline - Operational Railway Noise and Vibration (March 2019) railway ground borne noise criteria in Table 3-4 (Section 3) of Appendix W: Noise and Vibration Assessment - Railway Operations.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 3 Table 3-4
145	145.0064	State Agency	Noise and Vibration	Operational rail noise	The WHO limit of 42 dB(A) Lmax is based on a dose-effect related to aircraft.	Update the EIS to justify the use of dose-effect and its applicability to railway noise.	Whist guidance from the World Health Organisation can, in some circumstances, provide supporting advice on aspects such as sleeping disturbance. ARTC has elected to no longer reference the World Health Organisation guideline noise levels in the revised draft EIS. This decision was based on the noise and vibration assessments for the revised draft EIS now adopting relevant noise and vibration criteria from DTMR's Transport Noise Management Code of Practice Volumes 1 and 2 and the Interim Guideline (Section 16.3 of Chapter 16: Noise and Vibration). The submissions to the draft EIS also highlighted the application of supplemental guideline noise levels was potentially confusing to stakeholders and the community, leading at times to a misinterpretation of the assessment and its findings. References to the World Health Organisation guidelines have been removed from Appendix W: Noise and Vibration Assessment - Railway Operations. Refer to Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations that provides guidance on the relevant application of legislation, standards and Guidelines for operational rail noise in Queensland.	Chapter 16: Noise and Vibration Section 16.3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
145	145.0065	State Agency	Noise and Vibration	Operational rail noise	The EIS identifies a reduction of 7 dB(A) for facade level (external to internal) but does not provide a justification as to why that reduction has occurred. The EIS references AS3671 as the basis for the reduction but does not include the assumed opening percentage to justify the selected values or a comparison with available literature (i.e. values as low as 5 dB(A)).	Update the EIS to justify the selected facade reduction.	Facade reduction is a conservative estimate of the difference between outdoor railway noise and indoor railway noise allowing for windows to be open for ventilation. In the assessment of construction noise impacts, the CoP Vol 2 also prescribes that internal airborne construction noise criteria be met where reasonable and practicable for the sensitive receptor types that include hospital & health care service, educational establishment, community use & place of worship, as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. To assess the noise model predicted external noise levels against the internal (indoor) noise limits presented in Table 3-4 of Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, the noise limits are adjusted by a facade correction which accounts for the reduction of noise achieved by the building (with windows open). For the educational establishments and community buildings potentially impacted by the Project, a conservative 7 dB facade noise reduction has been applied, in the absence of actual measurement data, based on the guidance provided in DES Noise and Vibration EIS Information Guideline recommended for typical Queensland buildings. Further to this, sound insulation testing of facades typically representative of the educational buildings at Yelarbon State School, Brookstead State School, Pittsworth State High School and Southbrook Central State High were measured by WSP (WSP Report B2G Inland Rail Background Noise Monitoring and Facade Sound Insulation testing dated 21 February 2023). This information was also taken into account in the assessment as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The applicable DTMR Interim Guideline operational rail noise criteria for both residential and educational receivers are same and define an outdoor criteria (Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations). Where these outdoor criteria are exceeded, feasible and practicable noise mitigation measures for non-residential receivers will be further investigated during the Detailed Design stage and installed prior to Inland Rail operations commencing (see Section 16.10 of Chapter 16: Noise and Vibration).	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3.3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
145	145.0066	State Agency	Noise and Vibration	Operational rail noise	The last paragraph of Section 14.7.4.1 states: "It would be expected that residential property, complying to Australian building code and standards, would achieve facade noise reductions greater than the conservative 7 dBA assumption applied in this assessment."	Update the EIS to state what codes and standards would be expected to achieve a greater reduction than that applied in the assessment.	Facade reduction is a conservative estimate of the difference between outdoor railway noise and indoor railway noise allowing for windows to be open for ventilation. In the assessment of construction noise impacts, the CoP Vol 2 also prescribes that internal airborne construction noise criteria be met where reasonable and practicable for the sensitive receptor types that include hospital & health care service, educational establishment, community use & place of worship, as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. To assess the noise model predicted external noise levels against the internal (indoor) noise limits presented in Table 3-4 of Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, the noise limits are adjusted by a facade correction which accounts for the reduction of noise achieved by the building (with windows open). For the educational establishments and community buildings potentially impacted by the Project, a conservative 7 dB facade noise reduction has been applied, in the absence of actual measurement data, based on the guidance provided in DES Noise and Vibration EIS Information Guideline recommended for typical Queensland buildings. Further to this, sound insulation testing of facades typically representative of the educational buildings at Yelarbon State School, Brookstead State School, Pittsworth State High School and Southbrook Central State High were measured by WSP (WSP Report B2G Inland Rail Background Noise Monitoring and Facade Sound Insulation testing dated 21 February 2023). This information was also taken into account in the assessment as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The applicable DTMR Interim Guideline operational rail noise criteria for both residential and educational receivers are same and define an outdoor criteria (Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations). Where these outdoor criteria are exceeded, feasible and practicable noise mitigation measures for non-residential receivers will be further investigated during the Detailed Design stage and installed prior to Inland Rail operations commencing (see Section 16.10 of Chapter 16: Noise and Vibration).	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3.3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
145	145.0067	State Agency	Noise and Vibration	Operational rail noise	The assessment of vibration dose value (VDV) requires further clarification based on the following: <ul style="list-style-type: none"> Appendix T, s9.1, Provide the justification/reference document for rail crest factor of 4. Appendix T, s12.2, The Logarithmic VDV versus distance relationship is not clear on Figure 20 Appendix T, s9.2, VDV is based on weighted acceleration. It is unclear why Figure 21 include a vibration velocity spectrum. 	Update the EIS to: <ul style="list-style-type: none"> Justify the selected crest factor. Provide additional logarithmic x-axis labels and chart lines. Data would be clearer if each data set had mean, 5/25/50/75/95 percentiles and min/max values plotted. The adopted relationship would be expected to underestimate values at the distance of the Wantool dataset. Discuss the implication of this in relation to the closest sensitive receiver. Provide the source data for VDV measurement and predictor. 	The Department of Transport and Main Roads Interim Guideline Operational Railway Noise and Vibration (2019) standard includes ground-borne vibration criteria for the management of vibration from railway operations and are outlined in Chapter 16: Noise and Vibration, Section 16.8.2 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 3.2. For intermittent events such as train passy events, the vibration dose value (VDV) is applied to assess potential impacts to human comfort. The vibration dose value provides a cumulative measure of the vibration levels associated with all railway operations in the day, evening, or night periods. The VDV considers the combined effects of the level of the ground-borne vibration and the duration of vibration generating events and, as such, is suited for the assessment of transient sources such as train passbys. A crest factor of 4 is sourced from Federal Transit Administration (FTA-US) Transit Noise and Vibration Impact Assessment Manual, 2018. This crest factor, as suggested in the FTA manual, is also consistent with SLR's general observations from rail vibration measurements (Section 13.1 of Appendix W: Noise and Vibration Assessment - Railway Operations). Section 13.2 of Appendix W: Noise and Vibration Assessment - Railway Operations provides data to further support the development of a relationship between VDV vs distance. Based on the fit chosen, it can be seen that the predictions are conservative (as majority of the measured VDV's fall below the line). However, there are many variables involved in determining VDV's precisely, and hence further assessments are recommended during detailed design. Section 13.2 of Appendix W: Noise and Vibration Assessment - Railway Operations further shows a velocity spectrum as this is how source spectra are usually presented and enables comparison of verification against other source spectra. Velocity spectra can be readily converted to weighted acceleration spectra if required.	Chapter 16: Noise and Vibration Section 16.8.2 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3.2 Section 13.1 Section 13.2
145	145.0068	State Agency	Noise and Vibration	Operational rail noise	The assessment of ground borne noise requires further clarification based on the following: Appendix T, s13, the adjustment factors stated (0 dB) seem to be lower than those recommended for generic cases (i.e. where detailed information is not available for individual buildings) by the FTA Transit Noise and Vibration Impact Assessment Manual, 2018 (pg. 145), which recommends up to +6 dB adjustment.	Update the EIS to justify the selected adjustment factors or revise the modelling and assessment. Propose mitigation measures.	The assumption for coupling loss and amplification factor are considered appropriate at this stage of the assessment. Section 14 of the operational noise report has updated to explain the selection of adjustment factor. The FTA manual 2018 recommends a building coupling loss of -5 dB to wood frame houses, but also recommends a -2 dB for floor-to-floor loss and +6 dB for floor amplification/resonance which generally cancel out. As such, the assumptions are deemed appropriate going by generic adjustments from industry practice. However, further detailed review of coupling losses and amplification factors will be undertaken during detailed design where necessary.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 14
145	145.0073	State Agency	Stakeholder engagement		The Inland Rail Project will be a significant infrastructure Project in the Southern Queensland Region. Will educational tours and learning opportunities be offered to schools, institutes, universities and engineering groups as part of engagement activities?	Amend the EIS to comment on the educational opportunities the Project could offer to education providers.	As outlined in the revised draft EIS, ARTC is committed to providing training and development opportunities for the local community. As detailed in Appendix X: Social Impact Assessment, Section 7.2.3, ARTC has established the Inland Rail Skills Academy (IRSA), which is a collection of Projects and partnerships with the aim to: <ul style="list-style-type: none"> increase the number of skilled local people eligible for employment on Inland Rail and associated regional industries increase school student awareness and capability by connecting students with industry best practice create opportunities for local businesses to participate in new supply chains equip ARTC Inland Rail employees with world-class skills. ARTC notes that while the construction sites will be managed by the Contractor, site tours are listed as a requirement in the Project Scope Requirements. Appendix X: Social Impact Assessment, Section 7.2.3 and Section 8.3.2 details the education, skills training and development opportunities that will be provided on the Project.	Appendix E: Consultation Report Section 5.11 Appendix X: Social Impact Assessment Section 7.2.3 Section 8.3.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0074	State Agency	Social Impact Assessment		The scheduling in Table 15.5 is no longer accurate. Phases should be revised to align with likely final EIS CG Evaluation Report and approval by the Commonwealth Minister for EPBC Matters of National Environmental Significance.	Update the EIS (including Table 15.5) to reflect a more realistic schedule.	Revised draft EIS Chapter 5: Project Description, Section 5.3.6 Timing and Table 5-3 Anticipated Timing of the Project Stages and Activities detail the stages of Project.	Chapter 5: Project Description Section 5.3.6 Table 5-3
145	145.0075	State Agency	Stakeholder Engagement	Indigenous cultural heritage	Section 15.6.51 indicates that Social Impact Assessment (SIA) consultation with indigenous people identified, 'Potential for the Project cultural sites, such as bora rings, kippa rings or sites associated with ancestors' graves, or massacre sites'. However, these were not detailed in Chapter 17 Cultural Heritage.	Amend Chapter 15 to include additional information regarding consultation with indigenous people.	Since the draft EIS, additional engagement has been undertaken with Indigenous people on matters relating to Indigenous cultural heritage and Cultural Heritage Management Plan (CHMPs), Native Title and Indigenous Participation. A key outcome of engagement has been the establishment of a framework for communication and consultation with the Bigambul Native Title Aboriginal Corporation (BNTAC) on a range of matters. In 2019, ARTC developed a Statement of Commitment with BNTAC as the registered native title holders along the Project alignment. This is outlined in Chapter 6: Stakeholder Engagement, Section 6.6 and Appendix E: Consultation Report, Section 6.2.	Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 6.2
145	145.0076	State Agency	Traffic and Transport	Level crossing	Table 15.14 states that: "The maximum wait time at a level crossing has been calculated to be approximately 2-3 minutes for pass-by of a train of 1,800 m travelling at 115 km/h. This should be confirmed as waiting time may change based on train speed due to safety, change in grade, nearby crossing loops. Wait time calculation around potential future train length of 3,600 m should also be provided and include road user modelling to enable a better understanding of road user impacts and the need for grade separation."	The EIS should be updated to provide a level crossing wait time calculation based on train speed variation due to safety (i.e. 80 km hour), change of rail grade, crossing loops, shorter curve in rail track which will require a reduction in speed as opposed to a longer curve which will allow for top speed. Provide a level crossing wait time calculation based on proposed future train length of 3600 m (i.e. four to six minutes). Update the TIA accordingly. This is in addition to TMRs other comments on the proposed level crossings.	Revised draft EIS Section 5.2 of Chapter 5: Project description describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought. Section 5.9.3 of Appendix AA: Traffic Impact Assessment discusses analysis assumptions a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4). This Section also details on how the level crossing time delay has been calculated, including factors such as train approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m. Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of: <ul style="list-style-type: none"> The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate The time it takes the train to cross the level crossing Design vehicle consisting of a B-double for input parameters. Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows: <ul style="list-style-type: none"> Train clearance times were calculated based on an assumed maximum train speed of 115 km/h Calculation of the freight train acceleration rate Distance of the level crossing from passing loops Distance required to accelerate to maximum turnout speed (50 km/h) Distance travelled while at constant maximum turnout speed Distance required to accelerate to maximum speed after whole train has passed turnout Total distance required to reach maximum speed for train starting from turnout Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). The wait times determined for each individual level crossing were calculated based on: Level crossing specific operating speeds which is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops Train length Summarise traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons, as per Section 2.4). A sensitivity test (to represent a conservative upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. Typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished.	Chapter 5: Project Description Section 5.2 Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.1 Section 5.9.3
145	145.0077	State Agency	Social Impact Assessment	Workforce and employment	For Table 15.29 under Community Cohesion, there is no consideration of the likely amenity impact resulting from workforce accommodation that may remain in place post construction to accommodate overseas or interstate travellers requiring quarantining due to COVID, refugee processing/emigration or seasonal farming workforce housing.	Amend the EIS to include a risk consideration for potential long term/permanent use of Inland Rail workforce accommodation for potential other uses post construction.	The workforce accommodation facilities would be temporary for the purpose of construction and would be decommissioned following the completion of construction. Any future use of buildings or infrastructure on the properties would be subject to discussion between ARTC and the owners of properties on which facilities would be located. Secondary approvals including local government approval will be required prior to finalising the location, use and servicing of accommodation facilities.	N/A
145	145.0078	State Agency	Social Impact Assessment	Cumulative impacts	The construction dates in Table 15.30 need to be updated in accordance with the revised schedule for each Section on the Inland Rail proposal as they are no longer accurate. Also, each project represented in this Table should be reassessed in accordance with revised construction schedule for the B2G Section of the Inland Rail proposal.	Update the EIS to ensure construction schedules for all Inland Rail project sections in Queensland are reflective of current EIS and EPBC referral approval timeframes. Social cumulative impacts need to be reassessed in accordance with an updated construction schedule.	The revised draft EIS including Appendix X: Social Impact Assessment (throughout) has been updated to reflect changes to the construction timeframe. This included updating the cumulative social impact assessment (Appendix X: Social Impact Assessment, Section 7.6).	Appendix X: Social Impact Assessment Section 7.6
145	145.0079		Economics		Assuming freight time savings are based on 24 hours travel time achieved between Melbourne and Brisbane, there is no sensitivity analysis presented for loss resulting from any delay on the network. Can the EIS inform what the sensitivity of an hour's delay (due to an incident or maintenance issue) is on the network in relation to travel time on the B2G section?	Update the EIS to explain the significance and sensitivity of delays on individual rail sections as well as the larger Inland Rail project.	All assumptions relating to demand modelling, including the connection to the Port of Brisbane and intermodal terminals, are considered in the Inland Rail Program Business Case (2015). As such the EIS reflects the information contained in the Business Case and does not include any new assumptions. Sensitivity testing was undertaken in the Inland Rail Program Business Case (2015). As such considering demand modelling assumptions and sensitivity analysis relating to this modelling is outside the scope of this EIS. Chapter 20: Traffic, Transport and Access, Section 20.5 of the revised draft EIS, discusses the potential impacts of the construction and operation of the Project on the existing road and rail network. The following impacts may arise because of the increased number of vehicle movements on the existing road network during the Construction Works stage: <ul style="list-style-type: none"> Increased journey times on road linkages used by construction traffic Reduced LOS on road links used by construction traffic Increased waiting time at intersections used by construction traffic Accelerated degradation of road pavements due to increased volume of traffic and greater axle load. In addition, road users may experience temporarily altered driving conditions in proximity to construction areas, such as reduced speed limits, mobile traffic lights and lane reconfigurations. Altered driving conditions will result in increased travel times through sections of the road network where such controls are implemented. The potential traffic impacts as a consequence of vehicle movements in support of operation and maintenance activities are expected to be negligible. As outlined, demand modelling assumptions and sensitivity analysis relating to this modelling is outside the scope of this EIS. The purpose of the EIS process is to inform decision-makers and the public of the environmental consequences of implementing a proposed Project. Regarding maintenance activities, ARTC will be required to carry out essential rail maintenance and improvement works to the Inland Rail alignment to ensure safety and reliability across the network. Works may include track re-railing, resurfacing and reconditioning, as well as drainage restoration, track ballasting, level crossing upgrades, relocation of utilities, turnout maintenance and bridge maintenance. These essential activities are carried using a "track possession strategy", where freight services are prevented from using an allocated Section of track for a specified time period. ARTC works closely with rollingstock operators and distribution companies to plan these track closures to minimise disruptions to the freight distribution network. Routine maintenance work can be also carried out on active rail line under the supervision of a Track Protection Officer, thereby minimising disruptions to the rail network.	Chapter 18: Economics Section 18.7 Chapter 20: Traffic, Transport and Access Section 20.5
[145.0080		Economics		The EIS does not clearly state that local industry participation is mandated for ARTC.	Update the EIS to clarify that local industry participation has been mandated to ARTC.	In accordance with the <i>Australian Jobs Act 2013</i> (Cth), ARTC has prepared an Australian Industry Participation Plan (AIP Plan) for the Inland Rail Program which identifies how Australian entities, particularly businesses operating within the Goondiwindi, Toowoomba and nearby Local Government areas (LGAs), will be provided full, fair and reasonable opportunity to bid to supply goods and services to the Project. ARTC is also committed to ensuring that Indigenous businesses, including those operating within the SIA study area, are identified and encouraged to participate in the Project's supply chain. In recognition of stakeholders' expectations, and to ensure local business benefit from the Project, ARTC has developed subgroups to further categorise and define the geographical boundaries of what constitutes local, as discussed in Section 17.6 of Chapter 17: Social, and will report on local supplier participation from within the Goondiwindi and Toowoomba LGAs, as well as at regional, state and national level.	Chapter 17: Social Section 17.6
145	145.0081	State Agency	Cultural Heritage		Table 17.17 which is a summary of assessments that indicate cultural heritage significance threshold for site B2G-19-H22 Protest Public Art indicates that this area of interest is of cultural heritage 'State Significance' for the following criteria under the Queensland Heritage Act: Historical, Rarity, Aesthetic, Social and Associational. A Cultural Heritage assessment of B2G-19-H22 should be revisited to confirm if this is indeed State or more likely of Local significance. It is very unlikely this item would meet the criteria to be registered on the Queensland Heritage Register.	A cultural heritage assessment of B2G-19-H22 Protest Public Art should be revisited to confirm if this is indeed State or more likely of Local significance.	B2G-19-H22 Protest Public Art has been reassessed as of local significance, and the cultural heritage assessment in Chapter 19: Cultural Heritage, Section 19.8, Figure 19.2 and Tables 19-2, 19-15, 19-16, 19-19, 19-22, 19-23 and 19-24 have been updated.	Chapter 19: Cultural Heritage Section 19.8 Figure 19.2 Table 19-2 Table 19-15 Table 19-16 Table 19-19 Table 19-22 Table 19-23 Table 19-24
145	145.0082	State Agency	Cultural Heritage		Table 17.22 omits a 'practical completion' phase which should include an end of project Cultural Heritage Audit and the removal of any exclusion zoning fencing ensuring that on ground conditions are the same as when was fenced.	Update Table 17.22 to include a Practical Completion or Finalisation Phase where mitigation and management measures should include: end of project Cultural Heritage Audit <ul style="list-style-type: none"> the removal of any Cultural Heritage exclusion zoning fencing ensuring that on ground conditions remain the same as when was fenced. 	Chapter 19: Cultural Heritage, Table 19-21 has been updated to include a Practical completion stage.	Chapter 19: Cultural Heritage Table 19-21
145	145.0083	State Agency	Cultural Heritage		Table 17.22 indicates for the construction phase the review for adopting quieter and nonvibrator plant items near sensitive receptors is to be reported as part of ongoing Cultural Heritage site manager notes and subject to auditing requirements for compliance. This should also apply for appropriately sized plant and equipment selected for each construction task.	Consider as part of the Environmental Monitor or Auditing roles and requirements, the review of Site Manager notes to ensure consideration is given to adopting quieter and non-vibrator plant items near sensitive receptors IE Cultural Heritage areas of interest. Amend the EIS accordingly.	Chapter 19: Cultural Heritage, Table 19-21 has been updated to include more detail on the mitigation of potential vibration impacts on heritage sites. This includes measures to reassess potential vibration impacts ahead of works, and to limit these impacts where feasible by selecting quieter, non-vibratory, and appropriately sized equipment and plant.	Chapter 19: Cultural Heritage Table 19-21

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0084	State Agency	Traffic and Transport	Operational traffic	The use of SIDRA analysis for rail/road interfaces will not provide correct analysis with respect to queue length/stacking on side roads, particularly with rail on side roads. From a safety aspect and operation efficiency on state-controlled roads, it is TMR's intention to avoid queues on roads from traffic waiting to turn onto side roads having an interface with rail level crossing. It is TMR's intention to maintain unimpeded movement to traffic on statecontrolled roads.	The EIS should ensure that operational efficiency on the TMR road network is not worsened in the design process.	Appendix AA: Traffic Impact Assessment Section 5.4.5, Table 5.30 lists the intersection with more than 5 per cent aggregated vehicle minutes delay. Table 5.31 lists the intersections with less than 5 per cent aggregated vehicle minutes delay. Detailed output tables and SIDRA output summaries are included in Appendix AV of Appendix AA: Traffic Impact Assessment. Appendix AA: Traffic Impact Assessment Section 5.4.6 details mitigation measures for SIDRA intersection performance parameters that exceed acceptable operational limits. This operational assessment has reviewed the SIDRA intersection performance parameters LOS, DoS, average delay, and 95th percentile queue to determine which intersections are exceeding acceptable operational limits. Table 5.33 lists the typical infrastructure-based mitigation measures applicable to capacity issues. Table 5.34 lists the additional mitigation measures for the intersections along OSOM routes. Table 5.35 summarises the mitigation measures applicable to intersections that exceed 5 per cent net vehicle minutes delay, and also exceed acceptable operational capacity limits.	Appendix AA: Traffic Impact Assessment Section 5.4.5 Section 5.4.6 Table 5.30 Table 5.31 Table 5.33 Table 5.34 Table 5.35 Appendix AV
145	145.0085	State Agency	Landscape and Visual Amenity	Road safety	It is unclear whether any design analysis has been conducted that identified headlight glare from night-time train movements, particularly when travelling through towns or parallel to the highways. The EIS does not mention any details regarding this analysis.	Amend the EIS to clarify whether a design analysis of headlight glare from night-time trains has been conducted.	The LVIA has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting, are identified in Section 6. A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9 of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated. In addition, an Obtrusive Lighting Assessment (OLA) has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment). The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments. Chapter 24: Draft Outline Environmental Management Plan includes the following in relation and management measures for visual amenity and intrusive lighting: "while ensuring the construction and operational safety is not compromised, Australian Rail Track Corporation (ARTC) would seek to minimise light emissions from the Project (during construction and operation) by select placement, configuration and direction of lighting to reduce potential impacts to the surrounding environment, where practicable, in accordance with Australian Standards."	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.10 Section 6 Section 9 Section 9.2 Section 11.2 Appendix 3: Obtrusive Lighting Assessment Chapter 24: Draft Outline Environmental Management Plan
145	145.0086	State Agency	Traffic and Transport	Road safety	The EIS does not clarify how incidents at road/rail interfaces will be managed and who will be the agency dedicated to incident management. It is unclear if ARTC will be solely responsible for managing incidents or will they receive assistance from other agencies. Similarly management of flooding or fire related disaster events and its impacts at Rail/Road interfaces has not been clarified in the EIS.	Update the EIS to include the process and agency responsible for managing rail/road interface incidents.	Section 5.12.2 of Appendix AA: Traffic Impact Assessment identify the process and agency responsible for managing rail/road interface incidents. Section 5.12.2 states, all Rail Transport Operators (both Rolling Stock Operators (RSOs) and Rail Infrastructure Managers (RIMs)) are required under the Rail Safety National Law (RSNL) to establish, as part of their Safety Management System, an emergency management plan. The RSNL and RSNL National Regulations set out requirements for: <ul style="list-style-type: none"> • Matters that the plan must address. • Consultation required when preparing the Emergency Management Plan and • Keeping, maintaining and testing the emergency plan. The RIM takes the leading role in coordinating with other parties accessing their rail infrastructure and the emergency services, along with any relevant utility providers. The Office of the National Rail Safety Regulator (ONRSR) and Australian Transport Safety Bureau (ATSB) may or may not deploy to an incident site. When an immediately notifiable incident occurs: <ul style="list-style-type: none"> • The ONRSR assesses the incident against publicly available criteria and may: <ul style="list-style-type: none"> • Investigate the incident, or • Direct the terms of reference of an investigation by the relevant Rail Transport Operator/s and/or • Monitor the relevant RTO's compliance with their Safety Management System and RSNL in relation to the response to, and investigation of, the incident. • The ATSB assesses the incident to determine • Whether or not to investigate based on the potential of an investigation to identify systemic issues, and if so, • The level of investigation that will be conducted. Further detail is discussed in Section 5.12 of the Appendix AA: Traffic Impact Assessment regarding whether deployment has been actioned and rescue.	Appendix AA: Traffic Impact Assessment Section 5.12 Section 5.12.2
145	145.0087	State Agency	Traffic and Transport		Figure 18.1 and Figures 18.2a to 18.2h relate to the project rail alignment as well as the project road-rail interface locations. The figures identify roads as "major roads and "minor roads but it is difficult to determine what roads are state-controlled roads or local government roads.	Amend Figure 18.1 and Figures 18.2a to 18.2h to more clearly identify the road types and relevant ownership.	Appendix AA: Traffic Impact Assessment Figure 1.2a-i provide the Project road rail interface locations with major roads (state controlled roads) highlighted, and the local government areas shown. More details are provided in Table 3.12 which provides the proposed public road-rail interface and design treatment locations separated into road authority areas.	Appendix AA: Traffic Impact Assessment Figure 1.2a-i Table 3.12
145	145.0088	State Agency	Traffic and Transport		Chapter 18 references various parts of the Austroads series Guide to Traffic Engineering Practice. These manuals have been superseded.	Update the EIS to ensure that the latest Austroads manuals are referenced and used.	Appendix AA: Traffic Impact Assessment Section 1.1.1, Table 1-1 details the relevant Austroads guidelines used for the TIA assessment. These include: <ul style="list-style-type: none"> • Austroads Guide to Traffic Management Part 12 (Austroads, 2016) • Austroads Guide to Traffic Management Part 3 (Austroads, 2017) • Austroads Guide to Road Design Part 4A (Austroads, 2017b) • Austroads Guide to Traffic Management Part 6 (Austroads, 2019a) • Austroads Guide to Traffic Management Part 4 (Austroads, 2020) 	Appendix AA: Traffic Impact Assessment Section 1.1.1 Table 1-1
145	145.0089	State Agency	Traffic and Transport		The EIS states that the GTIA defines LOS as a qualitative index for ranking operating conditions on roads; but intersection delay is also used in GTIA to quantify impacts.	The EIS should be updated to ensure the TIA is undertaken in accordance with GTIA noting that some of the performance indicators are different.	Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA. LOS provides a qualitative index while delay provides the quantitative indication of impacts.	Appendix AA: Traffic Impact Assessment
145	145.0090	State Agency	Traffic and Transport		2019 traffic data should be available and used for state-controlled roads. The linear growth rate to be applied to state-controlled roads is to be discussed and agreed prior to finalised of the TIA and PIA.	Prior to finalising the TIA (which will not occur until after a Principal Construction Contractor is appointed), the background traffic growth rates to be applied to state-controlled roads are to be agreed to by TMR. Amend the EIS to illustrate this commitment.	The 2019 traffic data referenced has been used for all state-controlled roads and the updated traffic volume sources have been summarised in Section 2.4. Noting compound growth rate has been used throughout the Appendix AA: Traffic Impact Assessment for SCR and LGR to provide a conservative background traffic for assessment. Appendix AA: Traffic Impact Assessment Section 6.2 includes a commitment to ensure the finalised TIA will be developed in consultation with TMR. ARTC will Consult with TMR, councils, and where relevant QR, in determination of final construction and heavy vehicle routes and update all documentation and reports to ensure the report aligns with final construction traffic volumes, turning movements, routes and vehicle types.	Appendix AA: Traffic Impact Assessment Section 2.4 Section 6.2
145	145.0091	State Agency	Traffic and Transport	Construction traffic	The TIA states that traffic impacts associated with the offsite disposal of waste have not been assessed. The TIA should include a small allowance for the aggregate of all minor movements such as waste, cleaning services, caterers and other servicing vehicles combined to be added to the main construction activities.	Update the EIS to include an allowance for other traffic not covered under the main construction transportation activities.	Appendix AA: Traffic Impact Assessment Table 4.2 provides a summary of total trips by construction activity, per year, and includes a Table note that states traffic impacts associated with the off-site disposal of waste have not been assessed, as waste volumes generated during construction of the Project are not expected to be significant. Refer to Chapter 22: Waste and Resource Management Section 22.3.3 for further detail.	Chapter 22: Waste and Resource Management Section 22.3.3 Appendix AA: Traffic Impact Assessment Table 4.2
145	145.0092	State Agency	Traffic and Transport	Construction traffic	The EIS states that material deficit for the project may be approximately 971,237 m3 and that this has not been included as a construction transportation activity. This surplus may be up to between 97,124 heavy vehicle movements (loaded and unloaded assuming truck and dog combination at maximum legal payload) and 268,958 heavy vehicle movements (loaded and unloaded assuming tandem truck type at maximum legal payload). While it is understood some or all of the spoil can be reused, it is unacceptable to not include the management of a substantial amount of spoil in the assessment of construction transportation activities.	Update the EIS to include a probable and conservative scenario including haulage of spoil. Alternatively, the Traffic Impact Assessment must be updated to include details of construction spoil when specific details are known. Amend Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments to reflect this commitment.	As stated in Appendix AA: Traffic Impact Assessment, Section 5.12.1, Table 5.14 The horizontal and vertical alignment has been established to optimise the earthworks required and achieve as close to a net-balance as is possible. By minimising the material deficit for construction of the Project, the volume of material required to be imported has been reduced. Less imported material equates to fewer construction truck movements on public roads. Appendix AA: Traffic Impact Assessment, Table 4.1 provides the cut to fill and cut to spoil break down while the management of spoil and number of trips are provided in Table 4.2. Appendix AB: Earthworks Strategy and Draft Soil Management Plan of the revised draft EIS further detail spoil management for the Project. The mass haul quantities of fill and spoil have been estimated based on excavated volume of material, overlaid spatially and temporally across the Project. To generate a conservative number of heavy vehicle trips on the road network, a minimum of 10% of material excavated from each earthworks area has been allocated as spoil that cannot be reused and will need to be disposed of. A detailed assessment of material movement will form part of the mass haul assessment which will be carried out in the Detailed Design stage of the Project to determine the need for and viability of opportunities for material reuse.	Appendix AA: Traffic Impact Assessment Section 5.12.1 Table 5-14 Table 4-1 Table 4-2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan
145	145.0093	State Agency	Traffic and Transport		The statements about the performance criteria and TMRs GTIA are not correct. Nowhere in GTIA 2018 does it state such performance criteria. Similarly, Section 18.6.2.5 incorrectly suggests what GTIA 2018 considers minimum acceptable LOS values.	Update the EIS and TIA to be consistent with GTIA and use GTIA performance criteria.	Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to indicate performance thresholds for assessment of traffic impact were developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017). This includes the 5% threshold provided from the GTIA and other acceptable LOS values provided in the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a) and DTMR Guidelines for Assessment of Road Impacts of Development (2017).	Appendix AA: Traffic Impact Assessment
145	145.0094	State Agency	Traffic and Transport		Table 18.6 identifies the impact type and impact assessment year(s) for the project in relation to the requirements of TMRs GTIA. For pavement, the Table states that the impact assessment year related to each year of construction plus year of opening of each stage including the final stage over a 20-year design period. However, the GTIA states that the mitigation of pavement impacts occurs for a period of 20 after the opening of the final stage.	Amend the EIS to correctly reference the requirements of the GTIA in relation to impact assessment year by type.	Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to use assessment years including year of opening and 10 or 20 years post opening of each stage of the Project (varies between impact assessment type). However, it is envisaged the likely impact from the Operations stage of the Project, mainly from vehicles used for routine maintenance, would be negligible. As such, the operational years have not been considered in the pavement impact assessment including in the final stage over a 20-year design period due to the negligible impact anticipated. As per the GTIA, the PIA will be updated at the Detailed Design stage once the Construction contractor is appointed and the final construction methodology, transport routes and traffic generation is clearer and more certain.	Appendix AA: Traffic Impact Assessment
145	145.0095	State Agency	Traffic and Transport		The last box in Figure 18.5 says Prepare and finalise traffic impact assessment and road use Management Plan/infrastructure agreement if applicable with the asterisk noting that this is to be prior to project commencement. Many details will not be able to be finalised until after a Principal Construction Contractor is awarded. The definition of project commencement must be clearer and there needs to be a mechanism for updating the TIA once new information is available.	Update the EIS to define what project commencement means in the context of TIA and other road use agreements mean. Amend Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments to reflect ARTCs commitment to update the TIA.	Appendix AA: Traffic Impact Assessment Section 6.2 states a commitment to draft and finalise a Road use Management Plan (RUMP) for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing.	Appendix AA: Traffic Impact Assessment Section 6.2
145	145.0096	State Agency	Traffic and Transport		Section 18.5.6 identifies long-distance coach services that are privately operated that use roads within the impact assessment area. Crisps Coaches runs a service from Moree to Toowoomba that travels along the Cunningham Highway from Goondiwindi to Inglewood which intersects the proposed alignment where the project is located within the existing corridor.	Confirm and update the EIS as necessary to include the long-distance coach services provided by Crisps that travel from Moree to Toowoomba along the Cunningham Highway.	Appendix AA: Traffic Impact Assessment Section 2.10 details long distance coach services identified to overlap with the construction routes for the Project. This includes the service of Crisps Coaches between Toowoomba and Moree which is noted to interact with construction routes on the Cunningham Highway (Qld) and Newell Highway (NSW).	Appendix AA: Traffic Impact Assessment Section 2.10

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0097	State Agency	Traffic and Transport	Construction traffic	General construction activities are mostly during the day according to this section. It is probably worth indicating that another circumstance where night works will be required (in addition to the delivery of materials) are works to road where traffic volumes during the day do not permit lane closures without causing excessive delays.	Amend the EIS to include road works as another possible circumstance where works could occur outside the standard hours.	Appendix AA: Traffic Impact Assessment, Section 4.1.1 discusses hours of work used for the TIA. The proposed hours of work for the Project are detailed in Section 5.6.2 of Chapter 5: Project Description in accordance with the DTMR's Transport Noise Management Code of Practice: Volume 2 – Construction Noise and Vibration. The proposed hours of work include primary construction hours of Monday to Sunday 6am to 6pm, and no work on public holidays. For the purpose of a conservative assessment, the TIA assumes a 12-hour work day across 22 working days/month. Construction-related traffic is assumed to be linearly distributed across the above work hours. Peak hour traffic volumes were derived from peak daily volumes using the following key assumptions: <ul style="list-style-type: none"> Material delivery movements will be evenly distributed across the standard daily 12 hours of construction It has been assumed that two shifts will occur per day with 50 per cent of total staff working each shift. Appendix AA: Traffic Impact Assessment Section 3.6.3 discusses road-rail interfaces that are newly created by the Project, as well as road closures associated with the Project, are listed in Table 3-12 where relevant changes have been made. It is unlikely that roads impacted by the Project will trigger night works due to their daily traffic volumes. The appointed contractor will design all traffic management measures during detailed design and construction, in consultation with the relevant road managers.	Chapter 5: Project Description Section 5.6.2 Appendix AA: Traffic Impact Assessment Section 4.1.1 Section 3.6.3 Table 3-12
145	145.0098	State Agency	Traffic and Transport	Construction traffic	The project has potential to cause significant disruption to existing rail freight supply and logistics during the course of construction, particularly where online construction is undertaken. Traffic assumptions of the assessment do not address impacts specific to online construction of the project in that it involves displacing rail freight onto road for the duration of the construction work. There is a significant potential for disruption to rail freight including grains that displace rail freight on to road freight. The Traffic Impact Assessment does not consider this. It is unclear how TMR is engaged through this process, particularly where track possession are agreed and traffic assumptions are revised.	Update the EIS to detail traffic type and volumes that may be impacted or generated through the course of online construction methods.	Appendix AA: Traffic Impact Assessment Section 4.2.12 explains routes have been identified for the diversion of materials which would otherwise be transported by rail, however, will be restricted in train movements during the construction of the Project. The following assumptions have been considered by ARTC for the construction of the rail line: 1. If the Project utilises the option of road freight for grain and other domestic products during the construction of the QR lines, then the track will be close between certain sections for the length of construction period. Sections of QR track that would be closed: a) South Western Line: Whetstone to Kildonan b) Millmerran Branch Line: Millmerran to Pittsworth 2. Alternatively, the Project may elect to construct offline (physically separated from the existing track) through the brownfield corridors, under track closures and possessions. In doing so, the Project would not require the use of road freight for the transportation of grain and/or other domestic commodities. For the purpose of the TIA, it has been conservatively assumed that the Project will require complete closure of the QR lines at the locations specified in Option 1, above. This option requires redirection of all items which would otherwise be travelling via rail, increasing the traffic movements on the road possibly substantially, particularly during peak harvest season. Appendix AA: Traffic Impact Assessment Section 3.2.3 reiterates the assumption for temporary possession of the existing rail corridors for the duration of construction.	Appendix AA: Traffic Impact Assessment Section 4.2.12 Section 3.2.3 Table 4.1
145	145.0099	State Agency	Traffic and Transport	Construction traffic	The report suggests that online construction would result in the existing railway being nonoperational for periods and that alternative means of transportation will be required. Consultation with TMR will be required prior to this arrangement taking place. Depending on the length of time of the rail track closure and the resultant increase in the number of heavy vehicles using the road network, the TIA may have to be updated.	Update the EIS to include TMR as a potential party to any interface agreement. Amend Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments to reflect this commitment.	Appendix AA: Traffic Impact Assessment Section 3.2.3 discusses the Projects interface with existing Queensland Rail Infrastructure. As part of ARTCs ongoing engagement with QR and DTMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) obligations during Detailed Design, Construction Works and Operations stages will be clarified. Any necessary interface agreements with DTMR and QR will also be in place prior to the commencement of construction.	Appendix AA: Traffic Impact Assessment Section 3.2.3
145	145.0100	State Agency	Traffic and Transport		Section 18.6.1.2 is not clear as to the overall forecast daily rail freight traffic - including with existing traffic on the South Western Line and the Millmerran Branch Railway.	Update the EIS to clarify the existing and forecast rail freight traffic.	Appendix AA: Traffic Impact Assessment, Section 2.13 provides a summary of existing rail movements along the South Western Line and Millmerran Branch Line, respectively. Queensland Rail have supplied ARTC with all train movements on the South Western Line and Millmerran Branch Line from January 2015 to May 2022. A representative year (2017) indicated a maximum of 50 monthly train movements (June 2017) and a minimum of five monthly train movements (September 2017). In the same year, the Millmerran Branch Line had a maximum of 19 train movements (August 2017) and a minimum of zero train movements (six of the twelve months). The overall forecast of daily rail freight traffic once Inland Rail becomes operational is provided in Section 3.4 and Section 5.9 of Appendix AA: Traffic Impact Assessment which indicates an annual average of about 14 train services per day during initial years of operation. This is likely to increase to an average of 20 trains per day in 2040, and up to 25 per day during peak operational periods.	Appendix AA: Traffic Impact Assessment Section 2.13 Section 3.4 Section 5.9
145	145.0101	State Agency	Traffic and Transport	Level crossing	To give the reader a better understanding of the wait times at level crossings, Table 18.25 should be updated to include an estimated number of closures per day in certain years. For example, 101 second closure time, 30 times a day in 2030 and 40 times a day in 2040. Include both average number of closures per day and peak number of closures per day. This information is buried in the text but putting it in the Table will make it easier to read.	Update the EIS (including Table 18.25) to include number of closures at level crossing. This is in addition to TMRs other comments regarding the level crossings.	Table 5.69 in Section 5.9.3 of Appendix AA: Traffic Impact Assessment documents the total wait time per closure for all public active and passive level crossing locations along the Project alignment to determine the impacts of the operation of the level crossings on the road network. The analysis is as per the methodology outlined in Section 5.9.1.	Appendix AA: Traffic Impact Assessment Section 5.9.1 Section 5.9.3 Table 5.69
145	145.0102	State Agency	Traffic and Transport	Level crossing	Table 18.25 refers to vehicle wait times but is not considered to be an assessment of actual travel delay. The Table states total wait time per closure (seconds). In addition, it is unclear if wait times include a train at the more likely operational speed as opposed to the 115 km/h design speed, and the full period of advanced warning time and boom gate closure, where applicable. The EIS states delays at level crossings will, in most instances, be five seconds or less. However, SIDRA is not an indicator of average delays to travel time. The EIS does not consider the possibility of opposing trains passing a level crossing and the longest passing times. Road users are more likely to be non-compliant as waiting times increase in terms of frequency as well as duration. The assessment of travel delays should be more thoroughly explored and detailed to consider total wait times, delays caused, and at the likely operational speed in order to fully assess the delays both in terms of link delays and intersection delay proposed to be experienced over the at-grade level crossings of statecontrolled roads.	Revise and update the EIS and TIA to consider vehicle delays including in terms of total boom gate down time in minutes over a 24-hour period. Detail the longest anticipated closure period for simultaneously passing trains at the nominated operational speed. This is in addition to TMRs other comments regarding the level crossings.	Appendix AA: Traffic Impact Assessment Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of: <ul style="list-style-type: none"> The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate The time it takes the train to cross the level crossing Design vehicle consisting of a B-double for input parameters. Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows: <ul style="list-style-type: none"> Train clearance times were calculated based on an assumed maximum train speed of 115 km/h Calculation of the freight train acceleration rate Distance of the level crossing from passing loops Distance required to accelerate to maximum turnout speed (50 km/h) Distance travelled while at constant maximum turnout speed Distance required to accelerate to maximum speed after whole train has passed turnout Total distance required to reach maximum speed for train starting from turnout Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). The wait times determined for each individual level crossing were calculated based on: <ul style="list-style-type: none"> Level crossing specific operating speeds which is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops Train length Summarise traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons, as per Appendix AA: Traffic Impact Assessment Section 2.4). A sensitivity test (to represent an upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. Typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished. As part of the design process, the Project has considered aspects of longer train lengths to allow for future flexibility in use of the network. However, as stated in Section 5.2 of Chapter 5: Project Description, maximum train lengths assessed within the revised draft EIS is 1,800 m long.	Chapter 5: Project Description Section 5.2 Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.1
145	145.0103	State Agency	Traffic and Transport	Construction traffic	Table 18.27 lists a Section of Pittsworth-Felton Road as a Toowoomba Regional Council road. Pittsworth-Felton Road is a state-controlled road. The maps provided in Figure 18.3 are too small to be able to identify which sections are Pittsworth-Felton Road are intended to be used as construction routes. The TIA cannot be finalised until there is clarity on which sections of which roads are intended to be used for construction routes. The appropriateness of the road sections nominated to be used for construction routes has not been evaluated in detail. This will be done once a construction contractor is appointed and construction routes and heavy vehicle volumes are known with more certainty.	Update the EIS to ensure that the correct owner is identified for each of the road sections nominated to be used for construction routes.	Appendix AA: Traffic Impact Assessment has been updated to correct road names and ownership. Pittsworth-Felton Road is no longer referenced within the revised draft EIS.	Appendix AA: Traffic Impact Assessment
145	145.0104	State Agency	Traffic and Transport		The report lists Pittsworth-Tumaville Road as a state-controlled Road. TMR does not manage any road with that name.	Update the EIS to include correct road names and/or correct ownership (TMR or local government).	Appendix AA: Traffic Impact Assessment has been updated to correct road names and ownership. Pittsworth-Felton Road is no longer referenced within the revised draft EIS.	Appendix AA: Traffic Impact Assessment
145	145.0105	State Agency	Traffic and Transport	Road safety	The state-controlled road intersections identified as potentially requiring treatments based from the turn warrants safety assessment within the traffic impact assessment is confirmed to not be based on intersection count data, but does not describe the source of data and detail the assumptions of traffic volumes that are made for the purposes of this assessment.	Clarify the source data adopted for the turn warrants assessments. Update the EIS to provide turn warrants assessment including base data and detail the traffic engineering assumptions, for all state-controlled road intersections of the haulage route that are proposed for any turning movements.	Appendix AA: Traffic Impact Assessment Section 2.4 provides an overview of the traffic data collected and used for the purpose of determining intersection volumes (used for the turn warrants assessment) at SCR intersections and outlines the existing volumes for all intersections. As part of the traffic data collection task, traffic volumes have been collected along the Project construction routes over the recent years including: <ul style="list-style-type: none"> SCR census-based traffic volumes Local Government databases Traffic signal data (from DTMR STREAMS software) Link-based traffic volumes tube counts conducted in: <ul style="list-style-type: none"> September 2019 September/October 2020 March 2021 March 2022. Intersection turning counts conducted in: <ul style="list-style-type: none"> March 2021, around Brookstead March 2022, for the wider network May 2022, for diversion locations. In instances where traffic data was not available from road controlling authorities or traffic surveys conducted, conservative turning volume assumptions have been adopted using the available road link volumes. This methodology has been outlined in a technical memo to TMR which is provided in Appendix BP of Appendix AA: Traffic Impact Assessment. For the intersections where base traffic turning volumes were not available, the intersection assessment will be first undertaken by comparing two 'Base Traffic Scenarios' and then the 'worst case' scenario is considered for delay impacts. During detailed design, once the construction routes are finalised with a construction contractor, it is recommended that traffic counts be obtained for updating the traffic analysis where recent data (i.e. previous 5 years) is not available to accurately determine impacts of final Project alignment, construction program, methodology, routes and vehicle volumes.	Appendix AA: Traffic Impact Assessment Section 2.4 Appendix BP
145	145.0106	State Agency	Traffic and Transport		In addition, the assessment does not identify the year from which existing volumes were determined and projected to the forecast year. It is unclear if and how the base year and assessed year is determined.	Note that any future detailed assessment for the impacted intersections should require detailed intersection counts.	Appendix AA: Traffic Impact Assessment Section 6.2 states ARTC commit 'any potential intersection upgrades will be developed in consultation with DTMR and local councils.' and commit to 'Consult with DTMR, councils and impacted property owners with regards to network connectivity and legal property access to properties prior to the commencement of any construction activities.'	Appendix AA: Traffic Impact Assessment Section 6.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0107	State Agency	Traffic and Transport		Where the consolidation of private accesses or the relocation of a private access results in a change to the State-controlled network, TMR are also to be consulted. Access to a state-controlled road will generally need TMR approval.	Update Chapter 18 to confirm that any changes to the state-controlled road network shall require consultation with and approval from TMR.	<p>Section 3.6 of Appendix AA: Traffic Impact Assessment discusses crossing consolidation, relocation, diversion or realignment - existing road - rail interfaces may be closed, consolidated into fewer crossing points, relocated or diverted. Roads will be closed where the impact of diversions or consolidations is considered acceptable, or where the existing location is not considered safe and cannot reasonably be made safe. Approval for closures, where required, will be progressed in accordance with the requirements of the relevant legislation.</p> <p>Section 6.2 of Appendix AA: Traffic Impact Assessment contains a summary of commitments by ARTC and the Contractor outlined within Appendix AA: Traffic Impact Assessment. Commitments including:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersection ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.6</p> <p>Section 6.2</p>
145	145.0108	State Agency	Traffic and Transport	Level crossing	Pedestrian activity should be anticipated in all towns and connectivity is to be maintained. Although there are no dedicated pedestrian level crossings (which is presumed to mean affirmed footpath crossing), all level crossings within towns should ensure that pedestrians (and cyclists) can use the crossing in a safe way.	Update the EIS to include assess active transport needs at level crossings within towns.	<p>Further assessment of the feasibility of separate pedestrian access has been undertaken as a part of the revised reference design and summarised within Appendix AA: Traffic Impact Assessment. The revised reference design proposal consists of a grade separated road-over-rail crossing (310-11-E-0), where Cunningham Highway crosses the rail corridor approximately 400 m further west of the existing level crossing that is proposed for closure (310-11-E-1). A dedicated active pedestrian level crossing has been added at the existing Cunningham Highway interface location (310-11-E-1) to enable pedestrian movement north/south of the Yelarbon township.</p> <p>ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains in a Third Party Agreement with local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design.</p> <p>Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the Yelarbon pedestrian crossing facilities assessment in detail.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.7.2</p>
145	145.0109	State Agency	Traffic and Transport	Level crossing	Table 18.37 under Road-rail interfaces says that Grade-separated crossings of existing roads have been adopted instead of level crossings, where possible.	Update the EIS to accurately reflect the reasons for not grade-separating all crossings and also include commentary that crossing locations are still being negotiated with relevant road authorities. This is in addition to TMR's other comments regarding the level crossings.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>In response to the above, ARTC have updated the revised draft EIS Appendix AA: Traffic Impact Assessment with sub-Appendix BT Public level crossing treatment methodology. This is intended to provide Agencies and the Community with further transparency on the design process undertaken. Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Border to Gowrie.</p> <p>For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Appendix BT</p>
145	145.0110	State Agency	Traffic and Transport		Table 18.37 under Bridges states that Maintenance access to the deck level of all new structures has been incorporated into the design. It is unclear if this is for road over rail bridges as well.	Verify that all new structures include both rail over road and road over rail bridges. Amend the EIS accordingly.	Maintenance access to the deck level of all new bridge structures (including road-over-rail bridges) has been incorporated into the design. Bridge clearances have been established in consultation with the owners of existing assets over which the bridge structures span (i.e., DTMR, local councils and private landowners). Section 5.12 of Appendix AA: Traffic Impact Assessment further details mitigations incorporated into the revised reference design.	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.12</p>
145	145.0111	State Agency	Traffic and Transport	Cumulative impacts	Table 18.40 lists projects included in the traffic and transport cumulative impact assessment. Only Gowrie to Helidon (G2H) has been included. Until such time as construction routes for all Inland Rail projects have been finalised, the cumulative impact assessments cannot be fully assessed. There may be overlap between other Inland Rail project sections as well (for example, Helidon to Calvert (H2C), Calvert to Kagaru (C2K) and Kagaru to Acacia Ridge and Bromelton (K2ARB)).	It is recommended that the report be updated to note that further projects may be included in the cumulative impact assessment once there is more certainty on construction routes for all Inland Rail projects.	<p>Road controlling authorities, local councils, impacted stakeholders and the community have had the opportunity to comment on the draft EIS through the public consultation and submission process which ran between 23 January 2021 and 4 May 2021. ARTC engaged with stakeholders and community members to support the public consultation process and encourage formal submissions regarding the draft EIS.</p> <p>Responses were formulated for all submissions and, where relevant, updates were made to the revised draft EIS document, including within Appendix AA: Traffic Impact Assessment, following review of these submissions. The submissions and formulated responses can be found in revised draft EIS Appendix A1: Revised draft EIS Response to Submissions.</p> <p>A key outcome of the discussions with the Office of Coordinator-General was the preparation of four technical memos for Coordinator-General approval prior to their use for investigation and analysis for TIA for the revised draft EIS, including Base Traffic Data, Road Safety, Cumulative Impact Assessment, and Pavement Impact Assessment. The methodology technical notes were prepared to align with relevant TIA related processes within DTMR's GTIA and PIA and assumptions were outlined where required. The Cumulative Impact Assessment methodology note is provided in Appendix BR of Appendix AA: Traffic Impact Assessment.</p> <p>The quantitative cumulative impact assessment has been undertaken considering the complete Inland Rail construction from North Star to Border Project to Kagaru to Acacia Ridge/Bromelton Project. The traffic, transport and access impact study area considers the overlap of other Inland Rail packages with the Projects proposed construction routes across the complete construction timeframe over the six packages and considers available traffic volume information for the construction activities.</p> <p>The methodology adopted to determine the cumulative impact is summarised in Chapter 23: Cumulative Impact Assessment, Section 23.2 and 23.3.13, which provides an example of where the Project impact assessment area has been overlaid temporally and spatially with Inland Rails Border to Gowrie Project, North Star to Border Project, Gowrie to Helidon project, Calvert to Kagaru and Kagaru to Acacia Ridge/Bromelton Project construction volumes. The next step was to undertake the 5 per cent comparison of road link traffic volumes to identify any links where cumulative volumes exceed the Project's volumes and undertake appropriate impact assessment to identify required mitigation measures.</p> <p>The detailed results of the cumulative traffic impact assessment are presented in Appendix AA: Traffic Impact Assessment Section 5.11.</p>	<p>Chapter 23: Cumulative Impact Assessment</p> <p>Section 23.2</p> <p>Section 23.3.13</p> <p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.11</p> <p>Appendix BR</p> <p>Appendix A1: Revised draft EIS Response to Submissions</p>
145	145.0112	State Agency	Traffic and Transport	Construction traffic	Conclusion states that Further road-specific analysis, presented in Appendix X: Traffic Impact Assessment, indicates that the state-controlled road segments located in Queensland and NSW would have minimal pavement impact given the duration of construction activities and pavement loading. This statement is misleading as high loading over short durations can still have impacts on pavements that certainly shouldn't be classed as 'minimal'.	Update the EIS so that it does not minimise (or downplay) the potential for pavement impacts.	<p>The pavement impact assessment and road safety assessment has been updated in accordance with GTIA requirements and is documented in Section 5.2 and 5.6 of Appendix AA: Traffic Impact Assessment.</p> <p>ARTC will continue to engage with TMR and other road controlling authorities through the subsequent stages of the project</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2</p> <p>Section 5.6</p>
145	145.0113	State Agency	Traffic and Transport	Level crossing	<p>Table 18.11 indicates the location and level of safety controls at the existing railway level crossings. There are 3 existing state-controlled road level crossings as noted below:</p> <ul style="list-style-type: none"> 310-11-E-1 Cunningham Highway (Wondalli Street) " active railway level crossing (crossing ID: 1089) 310-40-E-2 Millmerran-Leyburn Road " passive railway level crossing (crossing ID: 2639) 310-44-E-2 Gore Highway " active railway level crossing (crossing ID: 682). <p>Section 18.6.1.2 notes an ALCAM assessment has been undertaken for existing and proposed railway level crossings and that ARTC will continue to consult with DTMR and local governments on the preferred road-rail interfaces. The existing state-controlled road level crossings will be upgraded as below:</p> <ul style="list-style-type: none"> 310-11-P-0 Cunningham Highway (Wondalli Street) - existing active level crossing and will be relocated east via a proposed grade separated railway crossing (road over rail) 310-40-E-2 Millmerran-Leyburn Road " existing passive level crossing will be upgraded to an active level crossing 310-44-E-2 Gore Highway " existing level crossing upgrade to a new grade separated crossing (road over rail) 	<p>The EIS, TIA and supporting documents should be amended to illustrate how the proposed treatments to the existing State-controlled road level crossings will comply with PO20 and PO24 of the State Code 2: Development in a Railway Environment, PO7 to PO9 of the State Code 6: Protection of state transport networks of the State Development Assessment Provisions and Section 2.2 of the Guide to Development in a Transport Environment: Rail for all existing impacted railway level crossings.</p>	<p>The revised draft EIS, Chapter 20: Traffic, Transport and Access, and Appendix AA: Traffic Impact Assessment have been undertaken in accordance with State Government requirements, including transport planning frameworks, policies, plans and guidelines listed within Chapter 20: Traffic, Transport and Access, Table 20.1. The State Planning Policy 2017 is specifically referenced, which governs the State Assessment and Referral Agency (SARA) State Development Assessment Provisions (SDAPs) which include the State Code 2: Development in a railway environment, and State Code 6: Protection of state transport networks. The Project Traffic Impact Assessment has been completed in accordance with the Guide to Traffic Impact Assessment (GTIA) to meet the requirements addressed within the SDAP.</p> <p>ARTC can confirm the revised draft EIS Appendix AA: Traffic Impact Assessment has assessed any existing level crossings within an impact assessment area in accordance with GTIA Section 14 and DTMR Guide to Development in a Transport Environment: Rail, refer to Appendix AA: Traffic Impact Assessment Section 5.8 for details.</p>	<p>Chapter 20: Traffic, Transport and Access</p> <p>Table 20.1</p> <p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.8</p>
145	145.0114	State Agency	Traffic and Transport		Section 18.5.4 indicates that the project alignment traverses several public transport routes, while Table 18.36 identifies the school bus services that are likely to be impacted by construction and/or operational traffic. If the construction of the project necessitates temporary bus stop and pedestrian access arrangements and/or alternative bus routes, ARTC will need to reach agreement on those arrangements with TMR's TransLink division. Although the draft Outline Environmental Management Plan references the need for the Detail Design phase to acknowledge and consider public transport and bus routes, it is unclear if the EIS references the requirement to obtain TMR TransLink divisions agreement.	Amend Chapter 18 Traffic, Transport and Access to include If any temporary bus stop and pedestrian access arrangements or alternative bus routes are required when construction routes are finalised, the Proponent must reach agreement on suitable arrangements with the Department of Transport and Main Roads TransLink Division (bus_stops@translink.com.au or on 3551 8700) prior to any construction or works commencing and The school bus routes identified in Figure 18.36 and the bus stops and pedestrian access to these stops must be maintained during construction of the development. Accordingly, if any temporary bus stop and pedestrian access arrangements or alternative bus routes are required when construction routes are finalised, the Proponent must reach agreement on suitable arrangements with the Department of Transport and Main Roads TransLink Division (bus_stops@translink.com.au or on 3551 8700) and/or bus operator (whichever is relevant) prior to any construction or works commencing. Amend Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments to reflect this requirement.	<p>The disruption to bus routes located near the alignment are likely to be during construction of the Project.</p> <p>Construction traffic on known school bus routes, or routes with significant cyclist or pedestrian activity will be restricted during pick-up and set-down times on school days, or peak active transport periods.</p> <p>Further measures may include measures such as signage or protection on construction routes with a high proportion of cyclists or pedestrians, employing contractor driver briefings on safe driving to avoid active transport users and community notifications.</p> <p>Once a construction contractor is appointed, construction routes and vehicle numbers are finalised, specific measures to mitigate impacts to active transport users will be required to be developed for the construction routes on a case-by-case basis. This is to minimise construction vehicles through areas of higher pedestrian or cyclists' activity, such as schools or town centres, in peak periods will reduce the impact and potential safety issues (Section 5.2, Appendix AA: Traffic Impact Assessment).</p> <p>In addition to identifying impact mitigation measures in a TIA for all applications, major developments must generally submit a road-use management plan (RUMP). The purpose of the RUMP is to detail how road impacts of Project traffic, particularly from HV use, will be avoided or managed during the life of the Project using road-use management strategies that are verifiable. The RUMP is detailed further in Section 5.12.3 of Appendix AA: Traffic Impact Assessment. The Contractor will use DTMR Guideline for Preparing a Road Use Management Plan and the Traffic and Road Use Management Manual for guidance and as a source of reference for preparing a RUMP. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing, to ensure management measures to minimise the potential impacts on the transport network are implemented and mechanisms are in place to manage these impacts into the future.</p> <p>Given that the school bus routes summarised in Table 5.114 (of Section 5.10.4 Appendix AA: Traffic Impact Assessment) do not tend to have designated bus stops, apart from the termini, prior to the Construction Works stage of the Project, suitable mitigation measures for all of the affected services, including the location of bus stops, should be identified in consultation with bus operators, local councils, impacted schools, Department of Education and the local community and be documented in the TMP to ensure school bus safety and understand any impacts to journey times, if any.</p> <p>It is expected that school bus services would not be substantially impacted from an operational and service reliability perspective as a result of the Project generated traffic during the Project construction. However, the construction contractor should avoid school bus services and school zones, with school zones and routes considered in the preparation of the CEMP, as discussed in Section 5.12.1 Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2</p> <p>Section 5.10.4</p> <p>Section 5.12.1</p> <p>Table 5.114</p>
145	145.0115	State Agency	Traffic and Transport		The department notes that there are adjoining interfaces with roads, including state-controlled roads, at some sections of the Inland Rail alignment. The road and rail interface includes any Section of the Inland Rail alignment that abuts, and not necessarily crosses over, a road. The associated risks for construction and operations near state-controlled roads is not considered. For example, the risks associated with direct vehicular access including uncontrolled vehicular access to the road corridor during construction or operations, and the proposed mitigation measures are not detailed in the EIS.	The hazard and risk Chapter provides little guidance as to details on the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to persons, within and adjacent to the project area(s) that are close to state-controlled roads, and in particular through construction and operational stages. Update the EIS to thoroughly consider hazard and risks associated with railway and construction activity adjoining road.	<p>The Project traffic access to the alignment corridor is through controlled vehicle access points to the road corridor during Construction Works and Operations stages. The EIS has been developed with a number of assumptions around the construction process, that will be developed further through Detailed Design and Construction Works stages of the Project.</p> <p>Once a construction contractor is appointed, the construction contractor will develop the Road Use Management Plan (RUMP) and the Traffic Management Plan in order to temporarily mitigate construction related traffic impacts. The construction contractor will be required to undertake risk assessments when preparing appropriate TMP and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 – Works on Roads' and DTMR's specification "MRTS02 – Provision for traffic" requirements. See Chapter 20: Traffic, Transport and Access for details regarding traffic management and road use management controls.</p> <p>As a part of the construction process, consultation between the construction contractor, ARTC, local councils and DTMR regarding the provision of road impact assessments and road safety audits for all impacted LGRs and SCR will be required.</p> <p>Additionally, the contractor will be required to commit to delivering appropriate mitigation measures (which have been agreed by the relevant road authorities) which address all identified road operation and safety matters and issues. Ongoing consultation will ensure directly impacted stakeholders are involved in developing the road safety mitigations.</p>	<p>Chapter 20: Traffic, Transport and Access</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0116	State Agency	Traffic and Transport	Level crossing	The EIS states that for road-rail interfaces: Where grade separation has not been feasible, the design has been developed in accordance with ARTC Engineering Code of Practice Level Crossings (ARTC, 2011) Level crossings have been subject to safe design studies and risk assessments in accordance with ALCAM to identify and reduce, as far as practicable, the potential risks with these crossings. Consistent with TMRs requirements for state-controlled roads, the road safety audits are to be undertaken. These road safety audits may identify other or additional physical controls that will be considered necessary.	Update Table 19.11 of the EIS to ensure it is consistent with TMRs requirements for rail interfaces with State-controlled roads. Note that on routes approved for use by type 1 road trains, investigations should include determining if any particular safety requirements need to be incorporated into the operation of the flashing lights e.g. longer pre-warning times and sight distances to the signals, allowance for greater safe stopping distances by advanced active warning signs. This is in addition to TMR's other comments on railway level crossings.	The road safety assessment presented within the TIA has been undertaken as per the framework laid out in GTIA Part C Section 9. This framework relies on the principle that a road's safety is not significantly worsened as a result of the Project and that any pre-existing or Project -introduced unacceptable safety risk is addressed. The GTIA acknowledges that safety is not readily quantifiable and may require scoring based on expert opinion on the changes to likelihood and/or consequence of a risk being realised. This road safety impact assessment has the following aims in accordance with the Project's TIA – Road Safety Methodology Technical Memo which was agreed with DTMR in November 2022 (Appendix BS of Appendix AA: Traffic Impact Assessment). A safety risk assessment based on existing crash history has been undertaken along the Project construction traffic routes and road-rail interface locations for the following scenarios: <ul style="list-style-type: none"> Without Project With Project With Project and with mitigation measures (required only if the score in the with Project situation is higher than in the without Project situation, or if the without Project score is in the 'high' category). Appendix AA: Traffic Impact Assessment, Section 5.12 provides whole of Project mitigation measures suggested for the Detailed Design and Construction Works stages, which include items such as construction traffic management plans, road use management plans, and non-infrastructure based mitigation measures. Appendix AA: Traffic Impact Assessment, Section 6.1 provides a summary of the intersections, road links and road-rail interfaces requiring mitigation as per the GTIA Part C Section 9 framework. The detailed road safety assessments are contained in Appendix AN, AO AP and AQ of Appendix AA: Traffic Impact Assessment for intersections, road links, road-rail interfaces (construction), and road-rail interfaces (operation) respectively. Appendix AA: Traffic Impact Assessment Section 5.9 details level crossing impact assessment and mitigation - operation, which includes assessment of vehicle wait times. Table 5.111 summarises the road-rail interface mitigation measures.	Appendix AA: Traffic Impact Assessment Section 5.9 Section 5.12 Section 6.1 Table 5.111 Appendix AN Appendix AO Appendix AP Appendix AQ Appendix BS
145	145.0117	State Agency	Land Resources	Survey effort/field investigation data	The proposed scale of soil mapping is considered excessive and not necessary. The TMR Soil Group Classifications Map provided in virtual document pool for tenderers should be referenced and used to minimise the frequency (scale) of sampling and to target soil sampling to ground-truth the boundaries of the TMR Soil Group mapped boundaries.	It is recommended ARTC use TMR's Soil Group mapped boundaries to minimise the frequency (scale) of sampling. Update the EIS accordingly.	ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at 1:10,000 scale in consultation with DoR. Soil management units from the investigation are provided in Section 4.5. This level of investigation is sufficient to allow determination of the suitability of the soils and to manage the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides general and site-specific soil management measures in Section 3.2 and Section 3.3 respectively.	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3 Appendix J: Soil Assessment Report Section 4.5 Figure 3.16
145	145.0118	State Agency	Hazard and Risk		A bushfire may be of 'High' consequence rather than Moderate through a high fire risk dry season.	Clarify and update the EIS to ensure that the residual risk with the mitigation strategies proposed through a high-risk seasonal period does not remain to be 'High'.	As detailed in Chapter 21: Hazard and Risk, Table 21-16, during Construction, hot works and other activities that may act as a source of ignition will be restricted during periods with a BoM fire danger rating of 'extreme' or higher to reduce the likelihood of construction activities initiating or exacerbating a bushfire. If hot works or other high fire-risk activities are required during periods of elevated fire danger, these works will be planned in accordance with ARTC's Total Fire Bans Procedure (ETM-13-01) (ARTC, 2020b). Such works may require a permit (e.g. permit to light fire), issued by QFES. Bushfire prevention and response procedures will also be incorporated into the CEMP to reduce the likelihood and impact of bushfires ignited or exacerbated by the Project. During operations of the project existing ARTC management plans and codes of practice, including the Fire Prevention Management Procedure will be applied to the operation of the Inland Rail network, including this Project, to reduce the likelihood of ignition or exacerbation of bushfire.	Chapter 21: Hazard and Risk Table 21-16
145	145.0119	State Agency	Waste and Resource Management	Construction waste	Under the Waste Reduction and Recycling Act 2011 (WRRRA), TMR is required to report annually on the volumes of waste generated, reused, recycled and disposed to landfill. TMR is expected to contribute to the Queensland Government's waste reduction targets and report how this is being achieved. The EIS does not clarify whether the contractors will be reporting on waste generated from their construction sites.	Amend the EIS to clarify whether contractors will conduct monthly reporting on waste as per MRTS 51 requirements.	Conformance with MRTS51 will only apply for Department of Transport and Main Roads (TMR) assets that will be constructed and/or affected by the Project. Project elements that are not related to TMR assets will be conditioned appropriately and is at the discretion of the regulatory authority, not TMR. Chapter 22: Waster and Resource Management, Table 22-9 has included, as a mitigation measure for waste management, that during the Construction Works stage recorded waste generation and disposal data is to be reported as a component of monthly construction environmental reporting.	Chapter 22: Waste and Resource Management Table 22-9
145	145.0120	State Agency	Project scope	Cumulative impacts	Cumulative impacts are defined as upstream and downstream, not just immediately adjacent. The assessment has only considered Gowrie to Helidon (G2H) in most impacts. Helidon to Calvert (H2C) and Calvert to Kagaru (C2K) also need to be considered, since they will impact on many different factors in the region.	The entire Inland Rail program within Queensland needs to be considered as a holistic operation to fully appreciate the impacts it will have. Amend the EIS and cumulative impact assessment to consider the whole program of Inland Rail works in Qld, not just projects immediately adjacent to the Border to Gowrie (B2G) section	Chapter 23: Cumulative Impacts, Table 23-8 lists projects included in the cumulative impact assessment for each specific matter and maximum overall cumulative impact significance. This includes Helidon to Calvert and Calvert to Kagaru.	Chapter 23: Cumulative Impacts Table 23-8
145	145.0121	State Agency	Project scope	Cumulative impacts	Section 6.1.9 and Table 6.2 lists projects included in the cumulative impact assessment and focuses on the Priority Development Areas, State Development Areas, and some EIS, but does not discuss and potentially omits any other significant developments approved under other legislation.	Update the Cumulative Impact Assessment of the EIS to consider any other permitted developments that may be of relevance. Update any other related technical assessments accordingly.	Chapter 23: Cumulative Impacts, Section 23.2.6 states that 26 projects have been identified for preliminary consideration for their potential to contribute to cumulative impacts, in combination with the Project. These projects are listed in Table 23-6 and shown on Figure 23-1. The list of projects for consideration in the cumulative impact assessment was collated with timelines to demonstrate the temporal relationship between projects (Table 23-6) and through a consideration of the following: <ul style="list-style-type: none"> Projects subject to assessment under the Environmental Protection Act 1994 (Qld) (EP Act) or the State Development and Public Works Organisation Act 1971 (Qld) (SDPWO Act) with an Initial Advice Statement (IAS) published by the Department of Environment and Science (DES). Projects listed in Goondiwindi Regional Council (GRC) and Toowoomba Regional Council (TRC) development application databases Development within Priority Development Areas and State Development Areas Economic Development Queensland (EDQ) development projects Community infrastructure designation projects Projects within the public register of environmental authorities Department of Transport and Main Roads (DTMR) infrastructure projects Private infrastructure facilities Development in accordance with regional planning interests Inland Rail projects immediately adjacent to the Project: <ul style="list-style-type: none"> North Star to NSW/QLD border Project Gowrie to Helidon Project. Other Queensland based Inland Rail Projects <ul style="list-style-type: none"> Helidon to Calvert Calvert to Kagaru Kagaru to Acacia Ridge and Bromelton The preliminary list of projects was further assessed to identify those that meet at least one of the following criteria: <ul style="list-style-type: none"> Projects that have been approved but where construction has not commenced Projects that have commenced construction, subsequent to issuance of the Terms of Reference for the Project, but have potential for overlap in construction activities with the Project Projects that have been completed, subsequent to issuance of the ToR for the Project Are operational developments that have future plans for expansion. Projects that were excluded from further assessment were: <ul style="list-style-type: none"> Existing projects with no known plans for expansion. Such projects are typically considered part of the 'existing environment' and have been accounted for in the impact assessment of each specific matter. Exceptions to this, where they occur, have been included in Section 23.2. Proposed projects that have not been developed to the point that details of their scale, size, location and core activities would be publicly available. Chapter 23: Cumulative Impacts, Table 23-8 lists that projects have been included in the cumulative impact assessment for each specific matter and maximum overall cumulative impact significance.	Chapter 23: Cumulative Impacts Section 23.2 Figure 23.1 Table 23.6 Table 23.8
145	145.0122	State Agency	Project scope	Cumulative impacts	Projects included in the cumulative impact assessment do not include projects of the Inland Rail programme and is stated to only consider the directly adjoining North Star to Border (NS2B) and Gowrie to Helidon (G2H) sections. The cumulative impact assessment must include all projects of the Inland Rail programme. It is anticipated there will be overlaps and cumulative impacts in some of the technical reports and these are required to be considered.	Update the Cumulative Impact Assessment of the EIS to include whole program of Inland Rail works in Qld, not just projects immediately adjacent to the Border to Gowrie (B2G) section. Update any other related technical assessments accordingly.	Chapter 23: Cumulative Impacts includes consideration of all Inland Rail works in Queensland as seen in Table 23-6: Preliminary list of projects for consideration in the cumulative impact assessment and Table 23-8: Projects included in the cumulative impact assessment for each specific matter and maximum overall cumulative impact significance.	Chapter 23: Cumulative Impacts Table 23-6 Table 23-8
145	145.0123	State Agency	Outline EMP		There appears to be a few deviations between the EIS and reference alignment. The EIS does not discuss how the impacts of the deviations will be assessed regarding environmental impacts, flora/fauna, noise issues and so on, and who will be managing those changes.	Amend the EIS to discuss how the deviations will be assessed regarding environmental impacts, flora/fauna, noise issues and so on, and who will be managing those changes (the process).	As discussed in Chapter 24: Draft Outline Environmental Management Plan, changes to the Project footprint are not anticipated, however during detailed design the alignment will be refined. Should development of the revised reference design lead to changes in the Project footprint, the Proponent will apply to the Coordinator-General to consider a request for Project change. The Coordinator-General may accept the proposed change to the Project footprint, and may impose further conditions or revised conditions as required by the nature of the proposed change and the likely impacts of the change. The Coordinator-General's conditions will be addressed through the finalised Outline Environmental Management Plan and the Construction EMP endorsed by the Environmental Monitor (see Chapter 24: Draft Outline Environmental Management Plan for detail scope for CEMP Plans). Prior to commencement of Construction, the Environmental Monitor is required to review and endorse these EMPs to ensure compliance. The Environmental Monitor will be required to maintain a current version of the Final Outline Environmental Management Plan and the Construction EMP. Both the Operations Environment Management Plan and the CEMP may require revision to address the effects of a change to the Project footprint that has been accepted by the Coordinator-General. Mitigations measures to be included in the revised and endorsed CEMP must address the environmental outcomes established in the Final Outline Environmental Management Plan and the matters addressed in the Coordinator-General's revised conditions. Such matters would likely include requirements pertaining to impacts on acoustic values, air quality values, flora and fauna values, groundwater and surface water values, and land resources. These aspects are addressed in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0124	State Agency	Outline EMP		This Section of the EIS only discusses the Construction stage. Prior work should also be included for reporting purposes. Prior works will include the required permits and approvals, results from fauna spotter investigations as well as erosion and sediment control installation and failures. These issues (including others not mentioned) should be reported on a monthly basis.	Update the EIS to provide information about the works, investigations and approvals taking place prior to the Construction stage. These should be reported on monthly. Update the draft Outline Environmental Management Plan to reflect this requirement.	The scale and complexity of the construction of the Project requires commencement of Pre-Construction Activities and Early Works packages in advance of the Construction Works stage. The Draft Outline Environmental Management Plan provides for the progressive development of environmental management measures, through the finalised Outline Environmental Management Plan and progressive development of the Construction EMP. The progressive development of the Construction EMP will provide a comprehensive management and reporting framework that addresses the Pre-Construction Activities and Early Works stages specifically. The overarching Construction EMP will continue to evolve in line with design development, detailed construction planning and adaptive management requirements. Environmental monitoring programs and reporting will be developed and undertaken for Pre-Construction Activities and Early Works and Construction Works stages of the Project. The monitoring programs will assess the compliance of the Project with the Construction Environmental Management Plan (CEMP) and determine the effectiveness of mitigation measures. Where required, ARTC will also conduct operational monitoring to ensure commitments in the revised draft EIS are adequately addressed. Inspections, monitoring and reporting will be undertaken to document compliance with imposed conditions, the CEMP and the Operation Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan). Construction compliance reporting will be prepared periodically by ARTC and completed through the Project database system. The CEMP provides the direction for the Project to meet statutory requirements for construction activities. The CEMP must be endorsed by the Environmental Monitor as being consistent with the Draft Outline Environmental Management Plan, Legislation requirements and conditions of approval, and provided to the Coordinator-General prior to the commencement of any relevant Project works (see Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0125	State Agency	Outline EMP		The EIS states that some works will be occurring 24 hours a day, 7 days a week. This may not accurately reflect the actual working hours because while these may be the desired working hours, individual permits and approvals may alter these times.	Amend the EIS to reflection that the hours of works are subject to permits and other restrictions and therefore may be less than 24 hours a day, 7 days a week.	The construction working hours are determined by the requirement to manage potential disruption to the community, particularly from noise. The Department of Transport and Main Roads Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration provides a management framework for standard and non-standard hours for construction work, as detailed in Chapter 24: Draft Outline Environmental Management Plan. Chapter 24: Draft Outline Environmental Management Plan details primary construction hours which have been established to minimise the length of construction as far as practicable and minimise the potential impacts to the community. Standard construction hours will be as follows: <ul style="list-style-type: none"> Monday to Friday 7.00 am to 6.00 pm Saturday 8.00 am to 1.00 pm Non-standard hours (day/evening) requiring specific construction mitigation measures will be: <ul style="list-style-type: none"> Monday - Friday 6:00pm - 10pm Saturday 1:00pm - 10:00pm and Sunday 7:00am - 10:00pm Non-standard hours (night time) requiring additional specific construction mitigation measures will be: <ul style="list-style-type: none"> Monday - Sunday 10.00pm to 7.00 am There will be no work on public holidays. Where construction planning requires works to be undertaken outside of the standard construction hours, such works will be subject to specific measures to manage and mitigate impacts associated with noise and vibration. Planning of construction activities for non-standard hours would include consultation with the owners and occupants of directly affected properties, the local community and stakeholders to inform of the proposed works, any anticipated impacts and the measures implemented to control possible impacts. Where works are planned for remote areas or areas well removed from sensitive receptors, the Construction EMP will allow for continuous (24/7) construction, with monitoring and the complaints process to support the program. The CEMP will provide for a complaints mechanism to ensure the environmental outcomes are being achieved. The handling and responses to complaints received will be reported in the periodic environmental reports to be provided to the Environmental Monitor and posted on the Project website. Such reporting will also describe any corrective actions taken and the implementation of adaptive management measures. This process is described in the Draft Outline Environmental Management Plan and will be carried forward into the finalised Outline Environmental Management Plan and endorsed CEMP.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0126	State Agency	Outline EMP		TMR's Fauna Sensitive Road Design Manual (2000) is referred to in the fauna movement section. The Fauna Sensitive Road Design Manual (2000) is currently being revised with input from numerous major projects.	ARTC should contact TMR for latest information relating to fauna movement to assist in the detailed design stage.	ARTC notes the Fauna Sensitive Road Design Manual (2000) is currently being revised. The current version at the time will be used during the Detailed Design stage and will be addressed in the development of the Wildlife Connectivity Plan as discussed in Chapter 24: Draft Environmental Management Plan.	Chapter 24: Draft Environmental Management Plan
145	145.0127	State Agency	Outline EMP		Erosion and sediment control should be dealt with through a separate Erosion and Sediment Control not just Section 22.11.2. The plan must: <ul style="list-style-type: none"> be an approved plan prior to preconstruction activities occur for all preconstruction activities be installed prior to all clearing activities require sediment basins to be decommissioned once the site is stable must have a management plans for ongoing maintenance and safety of permanent sediment basins/bioretention basins 	Amend the Outline Environment Management Plan to ensure these requirements are met.	Chapter 24: Draft Outline Environmental Management Plan, provides for the inclusion of an Erosion and Sediment Control Plan (ESCP). The ESCP will be developed as a component of the Construction Environmental Management Plan (CEMP) and will guide development of specific ESCPs and include detailed erosion hazard assessments and erosion and sediment control structure designs. The CEMP will be developed progressively to support the Project works through the Pre-Construction Activities and Early Works stage, as well as through the Construction Works stage. The CEMP must be endorsed by the Environmental Monitor as being consistent with the Finalised Outline EMP, Legislation requirements and conditions of approval prior to the commencement of any relevant Project works (Section 24.1). As stated in Chapter 24: Draft Outline Environmental Management Plan, an ESCP will be developed for each worksite or work area, including areas required for temporary works. Each ESCP will include measures to manage the extent of exposed surfaces, overland flows, erosion, scouring and sediment movement, and water quality management. Each ESCP will also provide for sediment basins to be decommissioned once the site is stable and will include a management plan for ongoing maintenance and safety of permanent sediment basins and bioretention basins.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0128	State Agency	Outline EMP		TMR is expecting to finalise the USQ Fauna Movement Study on the Toowoomba Bypass in July 2021. It is a 12-month study looking at the effectiveness of dedicated fauna movement structures, drainage culverts and bridge structures in the movement of fauna from one side of the road reserve to the other. This information will be pertinent to the environmental and design teams at ARTC during the detailed design stage.	Contact TMR for the latest information relating to fauna movement to assist in the detailed design stage.	ARTC have developed Appendix P: Fauna Connectivity Strategy which assess the effectiveness of dedicated fauna movement structures, drainage culverts and bridge structures in the movement of fauna from one side of the rail to the other which has incorporated the results of multiple assessments and the Department of Transport and Main Roads (2000-2010) Fauna Sensitive Road Design (Vols 1-2). This Fauna Connectivity Strategy has been developed and will be further refined during detailed design. The strategy will identify and refine priority crossing zones (PCZ) and development of a Wildlife Connectivity Plan. The Wildlife Connectivity Plan will be developed having regard to DTMR's revised Fauna Sensitive Road Design Manual and other relevant material, including the USQ Fauna Movement Study.	Appendix P: Fauna Connectivity Strategy Sections 5 and 6
145	145.0129	State Agency	Outline EMP		The current EIS assessment has identified various flora and fauna within the impacted corridor. The EIS does not include a process for managing any new found species in the project area, including whether ARTC would manage that process as the lead agency.	Update the EIS to include the process for managing new found species, including the agency that will manage that process.	A qualified Fauna Spotter Catcher will undertake pre-clearance surveys of habitats and vegetation during each stage of the Project. The pre-clearance spotter catcher survey will also be included in periodic monitoring and reporting for the Project (Chapter 24: Draft Outline Environmental Management Plan). To guide methods of pre-clearance fauna surveys, a Biodiversity Management Sub-plan will be developed in detailed design and incorporated into the Construction EMP. The role of a fauna spotter catcher is to monitor progressive clearing and manage the orderly movement and possible removal of protected species from areas affected by the Project works. This approach would extend to new-found species or unreported species. The jurisdiction for management of any new found species would be determined by the Coordinator-General through the evaluation report.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0130	State Agency	Outline EMP		The EIS does not clearly explain what type of criteria will be used for identifying suitable offset sites. Agencies including TMR and local council have future projects planned, and many of those projects are not currently in the public domain. The selection of offset land sites will require coordination with agencies regarding their future planning/road upgrades requirements. It is unclear whether ARTC will manage the coordination as the lead agency.	Amend the EIS to clarify the type of criteria used to identify suitable offset sites and detail the offset site selection process, including the consultation and coordination process with government agencies.	A Project Offsets Plan will be developed for the Project to provide the delivery of offsets, where appropriate, ahead of relevant clearing works being undertaken and finalised in consultation with relevant regulatory agencies (Appendix Q: Environmental Offsets Delivery Strategy and Chapter 24: Draft Outline Environmental Management Plan). The Project Offsets Plan includes Interim Offset Property Management Plans (IOPMO), which will be guided by each property specific IOPMP. OPMPs will be developed for each acquired offset property and implemented prior to the approval of each Offset Area Management Plan (OAMP). IOPMPs will address the following components: <ul style="list-style-type: none"> Summary of existing land use activities Property description including built infrastructure Legislation and regulatory requirements relating to property management (including Biosecurity regulations, ground disturbance of herbicides, local laws and ARTC policies as applicable) Threats - current and emerging including biosecurity, fire and land use Management areas/zones including no-go zones Management actions and prescriptions based on 'best practice' land management principles Monitoring, evaluation and reporting Should the Coordinator-General decide the Project can proceed, subject to conditions, the requirement for a Project Offsets Plan will form part of those imposed conditions. The Coordinator-General will nominate the entities with jurisdiction for the conditions imposed on the Project, including the requirement for Project Offsets Plan. This process would natural entail a coordination process. ARTC has no jurisdiction nor has it any coordination powers or role.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0131	State Agency	Outline EMP		The EIS does not clearly state who will manage the relocation of fauna during any construction activities. It is unclear whether ARTC will manage the relocation process as the lead agency.	Amend the EIS to clarify who will manage the relocation of fauna during any construction activities.	A qualified Fauna Spotter Catcher will undertake pre-clearance surveys of vegetation and will supervise the subsequent clearing of vegetation and relocation of fauna, if required (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
145	145.0132	State Agency	Outline EMP		The Outline Environmental Management Plan omits 'a Biosecurity sub-plan'.	Amend the Outline Environmental Management Plan to require a Biosecurity sub-plan.	A Biosecurity Management Plan will be prepared as part of the CEMP, to be submitted for approval prior to construction works commencing. Chapter 24: Draft Outline Environmental Management Plan includes structure that will guide development of the Biosecurity Management sub plan.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0133	State Agency	Outline EMP		The pre-construction activities omit the following: the establishment of early erosion and sediment controls and sediment basins associated with pre-construction activities.	Consider amending the EIS to include 'the establishment of early erosion and sediment controls and sediment basins.'	Chapter 24: Draft Outline Environmental Management Plan provides for the inclusion of an Erosion and Sediment Control Plan (ESCP) as part of the Construction EMP (CEMP). The CEMP will be developed progressively to support the Project works through the Pre-Construction Activities and Early Works stage, as well as through the Construction Works stage. The CEMP must be endorsed by the Environmental Monitor as being consistent with the finalised Outline EMP, Legislation requirements and conditions of approval prior to the commencement of any relevant Project works. The specific erosion control measures for each worksite will reflect the topography, drainage and vegetation of the site, and will address the decommissioning and rehabilitation of those sites, in conjunction with the requirements of the Rehabilitation and Landscape Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0134	State Agency	Outline EMP		The general construction activities omit the following. <ul style="list-style-type: none"> Establishment of erosion and sediment controls including the diversion of water around disturbance footprint where practical and feasible. Sequential clearing while utilising a fauna spotter/catcher. 	Consider amending the EIS to require: <ul style="list-style-type: none"> Establishment of erosion and sediment controls including the diversion of water around disturbance footprint where practical and feasible. Sequential clearing while utilising a fauna spotter/catcher. 	Chapter 24: Draft Outline Environmental Management Plan, provides for the establishment of an Erosion and Sediment Control Plan (ESCP). As noted previously, the ESCP will be developed progressively in step with Pre-construction Activities and Early Works, and general Construction. An Erosion and Sediment Control. Each plan will be regularly updated and maintained during construction. The Erosion and Sediment Control Plan will include: <ul style="list-style-type: none"> Locations for specific temporary/permanent erosion and sediment control measures, such as: Berms and other surface flow diversions Sediment fending Scour protection (including in the revised reference design) Sediment retention basins Nomination of location-specific erosion controls will include consideration of site conditions, proximity to environmental receptors, adjoining land uses, climatic and seasonal factors, and will be based on an erosion risk assessment Minimisation of the area of disturbance during each stage to that required to enable the safe construction, operation and maintenance of the rail corridor Revegetation sites in a timely manner following completion of construction <ul style="list-style-type: none"> Minimising disturbance (timing of clearing to minimise amount of exposed soil) Scheduling of works with consideration to periods of higher rainfall (summer months) Establishing and specifying the monitoring and performance objectives for handover on completion of construction Stockpiling and managements/segregation of topsoil where it contains native plants, seedbank or weed material Details of ESCP structure, other supporting plans and mitigation measures are included in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0135	State Agency	Outline EMP		During project finalisation and as part of the rehabilitation plan, management and appropriate treatment of invasive plants is required as cleared areas free of ground cover are a high risk of weed invasion.	It is recommended the EIS be amended to include the requirement for the management and appropriate treatment of invasive plants as cleared areas free of ground cover are a high risk of weed invasion.	Chapter 24: Draft Outline Environmental Management Plan provides for the preparation of a Rehabilitation and Landscaping Management Plan, and Biosecurity Management Plan as part of the Construction EMP. These plans will be developed during detailed design. As stated in Chapter 24: Draft Outline Environmental Management Plan, the Biosecurity Management Plan to be developed and implemented into the Construction Environmental Management Plan will include: <ul style="list-style-type: none"> Requirements for pre-clearing and operational surveys to determine the risk of weeds or pest animals being present within the Project footprint Weed surveillance and treatment during construction and rehabilitation activities such as: Vehicle and plant washdown requirements for fleet moving from low-risk areas to high-risk areas Weed certification requirements for vehicles, plant and materials arriving onto the construction site Requirements in relation to pesticide and herbicide use, including any limitations on use. Restrictions may apply in proximity to watercourses, known areas of MNES or MSES habitat or land uses sensitive to spray-drift from the application of pesticides and herbicides (e.g. organic farming practices) Corrective actions if the outcomes do not achieve the adopted objectives. 	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0136	State Agency	Approvals/conditions/recommendations		Section 22.4 includes the following dot point. All employees, contractors and subcontractors will receive an environmental induction that will include, but not be limited to: Relevant imposed conditions. It is unclear if this imposed condition is referring to EIS imposed condition or conditions under secondary approvals.	It is recommended the EIS be amended to more correctly read: EIS Coordinator General Evaluation Report imposed, stated and recommended conditions included secondary approvals and conditions obtain by project for the relevant activities.	Wording has been updated in Chapter 24: Draft Outline Environmental Management Plan, as follows: All employees, contractors and subcontractors will receive an environmental induction that will include: ► Coordinator-General Evaluation Report Imposed and Conditions of Approval ► Secondary approvals and conditions obtained by the Project for the relevant activities etc.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0137	State Agency	Outline EMP		Section 22.5 indicates that: Section 320 to 320G of the EP Act outline the requirements for the duty to notify of environmental harm. Pollution incidents and activities that cause or threaten to cause serious environmental harm or material environmental harm must be reported within 24 hours to the Department of Environment and Science and other stakeholders. Add the word "potential" before "serious environmental harm" and "material environmental harm". This is to acknowledge that without appropriate investigation within the statutory 24-hour duty to notify obligation, it is unclear what, who, where, how and why an environmental incident has occurred including any environmental/remediation costs.	It is recommended the EIS be amended to read cause potential serious environmental harm or potential material environmental harm.	Each member of the Project delivery team has a 'general environmental duty' under Section 319 of the Environmental Protection Act 1997 (Old) (EP Act), and will not carry out any activities that cause, or are likely to cause, unauthorised environmental harm, unless all reasonable and practical measures are taken to prevent or minimise harm (Chapter 24: Draft Outline Environmental Management Plan). The OEMP includes discussion regarding incidents, notifications and emergencies. The EP Act outlines requirements for the duty to notify of environmental harm. Pollution incidents and activities that cause or threaten to cause potential serious environmental harm or potential material environmental harm will be reported within 24 hours to the Department of Environment, Science and Innovation (DESI), and other stakeholders, as required, so that appropriate action can be taken to prevent or limit possible environmental harm. Chapter 24: Draft Outline Environmental Management Plan wording amended to the following, 'cause potential serious environmental harm or potential material environmental harm'	Chapter 24: Draft Outline Environmental Management Plan
145	145.0138	State Agency	Outline EMP		For consistency with C2K Chapter 22 OEMP, and to ensure appropriate consultation, assessment and justification is provided for works outside of standard work hours, ensure B2G Ch 22, Table 22.2 includes the following foot note. 1. Works outside of standard hours will only proceed where: a. Consultation with the local community has been undertaken. A site-specific noise risk assessment has been undertaken to identify the environmental risks associated with the works and action required to mitigate these risks. Justification is provided as to why the works are required outside of the hours nominated for surface works above.	It is recommended the EIS be amended to include a footnote at the bottom of Table 22.2 that reads: 1. Works outside of standard hours will only proceed where: a. Consultation with the local community has been undertaken b. A site-specific noise risk assessment has been undertaken to identify the environmental risks associated with the works and action required to mitigate these risks Justification is provided as to why the works are required outside of the hours nominated for surface works above.	Chapter 24: Draft Outline Environmental Management Plan details construction hours for the Project. Construction working hours are determined by the requirement to manage potential disruption to the community, particularly from noise. The Department of Transport and Main Roads (DTMR) Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration recommends standard and non-standard hours for construction work. If construction activities are required to take place during non-standard hours consultation with the local community will be undertaken (this includes planning regarding works required) prior to works commencing.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0139	State Agency	Outline EMP		Table 22.4 indicates ► Encountering potential acid sulphate soils (PASS) and/or acid rock drainage (ARD). All excavated material that is suspected to contain sulphides will be stockpiled, lined and covered, and managed to minimise rainfall infiltration and leaching. There is likely to be PASS disturbed during construction. Stockpiling, lining and covering PASS material may still lead to oxidation and leaching. Soil testing for Actual and Potential Acid Sulphate soils should be undertaken to confirm treatment/liming rate to neutralise the acidification of stockpiled/transported/reused/discharged spoil. Treatment with lime may not be viable or the only option, for example if PASS material is likely to be used in batters where those batters are capped off. Excavated PASS material can also be transported in sealed haulage trucks and treated at disposal sites.	It is recommended the EIS/Chapter 22 Draft Outline Environmental Management Plan be amended to include: ► Soil testing for Actual and Potential Acid Sulphate soils should be undertaken to confirm treatment/liming rate to neutralise the oxidation and leaching of acids at stockpiled/transported/reused/discharged spoil material. ► Treatment with lime may not be viable or the only option, for example if PASS material is likely to be used in batters where those batters are capped off. Excavated PASS material can also be transported in sealed haulage trucks and treated at disposal site.	Further geotechnical investigation will be undertaken as part of the Detailed Design stage. If Acid Sulfate Soils (ASS) are identified through further investigations and will be disturbed by construction activities, an ASS Management Plan will be developed, if required in accordance with the Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines v4. 0 (DSTI, 2014a) and the State Planning Policy (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
145	145.0140	State Agency	Outline EMP		Options are required for the decommissioning of sediment basins upon practical completion, as follows. ► Consult with landowners to retain sediment basin as watering hole ► Decommission sediment basins ► Retain sediment basin for erosion and sediment control with fencing and ongoing maintenance requirements. These do not appear to be covered in the draft Outline Environmental Management Plan.	During project finalisation consider options for the decommission or retention of sediment basins. Noting that sediment basins that are retained may need to be fenced to reduce drowning.	As part of Chapter 24: Draft Outline Environmental Management Plan, an Erosion and Sediment Control Plan (ESCP) and a Rehabilitation and Landscape Management Plan will be developed as part of the Construction Environmental Management Plan (CEMP). Each of these plans will need to be regularly updated and maintained during construction. Worksite rehabilitation will be completed in accordance with the Rehabilitation and Landscape Management Plan. The Draft Outline Environmental Management Plan requires such rehabilitation to return worked areas to a stable condition that complies with the conditions of landowner agreements and regulatory approvals. Landowner consultation is a central tenant in this process.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0141	State Agency	Outline EMP		An air quality monitoring station is located near Commodore Mine and Millmerran Power Station during construction for background air quality and dust deposition monitoring. The monitoring station is likely to be impacted by cross contamination from the Commodore Mine and Millmerran Power Station. Background monitoring is likely to be compromised due to proximity of Commodore Mine and Millmerran Power Station, and therefore wouldn't be a true indicator of background air quality for environmental nuisance incident monitoring.	It is recommended that air quality monitoring be undertaken at several alternative sites along the B2G alignment where there is less chance of result cross contamination from other airborne dust nuisances.	Chapter 24: Draft Outline Environmental Management Plan includes further detail regarding monitoring. In addition to air quality monitoring near Commodore Mine, monitoring will also be undertaken in urban and semi-urban areas. These areas are of higher concern for air quality impacts due to the increased density of sensitive receptors located near construction areas and associated dust emission sources. Further quantitative assessment of potential dust deposition at sensitive receptors from construction will be completed in future stages (prior to Construction) when more detailed construction information is available. The outcomes of further assessment will guide requirements for the locations of dust deposition monitoring in urban and semi-urban areas. ARTC will monitor for potential dust deposition in urban and semi-urban areas including, but not limited to, the areas of Yelarbon, Pittsworth and Brookstead.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0142	State Agency	Outline EMP		It is unclear if pipe around culverts have been proposed due to the use of zoned embankments. Reactive soils in zoned embankments will require additional mitigation measures where culverts penetrate.	Update the EIS to confirm if pipe zoned embankments have been used, and update and mitigate any requirements as necessary.	The cross-drainage and longitudinal drainage design register has been updated through revision of the revised reference design and hydraulic models. The register will be further updated as detailed design progresses, to incorporate any necessary mitigation measures for specific soils and overland flow considerations. The culvert designs will include mitigations for associated impacts such as fauna movements, erosion and score control, overland flow and soils (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
145	145.0143	State Agency	Outline EMP		Relating to the treatment of acid sulphate soils, where material is disturbed and exposed to air, testing and appropriated rates of lime treatment need to be calculated and applied to stockpiled materials.	Update the EIS to ensure that material which is disturbed and exposed to air, testing and appropriated rates of treatment (lime) are calculated and applied to stockpiled materials.	Considering the regional location of the Project footprint and the findings of the investigations that informed the Draft Soil Management Plan, the potential for the Project to intercept ASS or PASS is very low to negligible. Any provisions in the finalised Operation Environmental Management Plan and Construction Environmental Management Plan regarding the handling of ASS or acid rock material, are included out an abundance of caution. Chapter 24: Draft Outline Environmental Management Plan states, additional geotechnical investigations will be undertaken to inform the design of earthworks and foundations for structures, suitability of borrow and quarry material, and construction planning for the Project. Additional geotechnical investigations will specifically target locations where the design includes: ► Cuts ► Embankments ► Bridge piers, culverts and abutments ► The floodplains in cut off relict streams and billabongs or lakes adjacent to Macintyre River, Macintyre Brook, Condamine River and Oxley Creek, may be disturbed by construction. In the highly unlikely event that acid soils or acid rock material is intercepted, an ASS Management Plan will be developed in accordance with the Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines v4. 0 (DSTI, 2014a) and the State Planning Policy.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0144	State Agency	Outline EMP		It is unclear whether any additional land requirements have been considered if contaminated leachate is found at deep cuts and ponds.	Update the EIS to confirm deep cuts have an additional footprint in anticipation of requiring more space for ponds.	Chapter 24: Draft Outline Environmental Management Plan includes precautionary mitigation measures for management of Acid Rock Drainage (ARD) (leachate) if acid leachate is detected through monitoring, management measures consistent with Preventing Acid and Metaliferous Drainage: Leading Practice Sustainability Development Program for the Mining Industry (Commonwealth of Australia, 2016) would be developed. If ARD (leachate) is identified during construction, seepage water from relevant deep cuts will be sampled at weekly intervals to determine a trend and mitigations investigated. If contaminated discharge water/leachate is found to be generated from the deep cuts, this water may need to be impounded in ponds and stabilised via treatment with hydrated lime or dilution prior to release into the surrounding catchment or other discharge mechanisms. Determination of additional land requirements for ponds to impound ARD (leachate) will be investigated in detailed design following further geotechnical investigations.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0145	State Agency	Outline EMP		It is unclear whether alternative borehole locations have already been identified, in anticipation of access being denied/not available.	Update the EIS and the project to identify alternative locations now rather than once the detail design stage commences to manage risk and impacts to project timing and delivery.	ARTC has developed a 'make good' approach to compensating landowners whose access to their bore or bores is either constrained or lost due to the Project works. This process is explained in diagrammatic form in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
145	145.0146	State Agency	Outline EMP		The EIS including Table 22.22 references the Queensland Level Crossing Safety Strategy 2012-2021. It is important to note this policy has been updated with the 2019 Update: On Track to Zero Harm. It is recommended that both versions be referenced.	It is recommended that both the Queensland Level Crossing Safety Strategy 2012-2021 and the 2019 Update: On Track to Zero Harm versions be referenced.	The Appendix AA: Traffic Impact Assessment and relevant mitigation measures have incorporated, where relevant, the reference to the latest Queensland Level Crossing Safety Strategy 2012-2021 which includes the "2019 Update: on Track to ZERO Harm" as a subtitle to the 2012-2021 Strategy. This referencing has been incorporated into Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan Appendix AA: Traffic Impact Assessment
145	145.0147	State Agency	Outline EMP		Under Construction (Delivery stage), Bushfire (Aspect), mitigation measures do not include the avoidance and management of vehicles traversing through long/dry grass/vegetation, vehicle inspections and carrying of firefighting equipment. During and after travelling through long dry vegetation, there is potential for underbody vehicle ignition and bushfire.	Amend the EIS and draft Outline Environmental Management Plan to require project personnel to avoid where possible the vehicles traversing through long dry grass or similar vegetation, and for personnel to ensure fire safety precautions (firefighting equipment and training) are implemented prior to using vehicles (e.g. inspect vehicle underbody for collected or grass/vegetation in contact with hot exhaust or similar parts.).	Project works will involve early clearing of identified vegetation and stripping of grass and surface materials. The risk of such works triggering grassfire risk is very low. In hot dry conditions, there is a risk for grassfire hazard where survey vehicles advance through long grass on farmland. The Project EMS, worksite WHS plans and ARTCs Total Fire Bans Procedure (ETM-13-01) will address the management of grassfire hazards for survey work. Generally, the Project EMS and the CEMP will address the risk of inadvertent bushfire hazard and hazard reduction (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
145	145.0148	State Agency	Outline EMP		TMR recommends adopting circular economy model principles and shifting away from current linear economic model based on the take-make-dispose; approach to managing products and resources. Through circular economy principles ► design out waste and pollution ► keep products and materials in use ► regenerate natural systems Noting that the Queensland governments initiative supports circular economy in Queensland.	Adopt a Circular Economy model in the construction, operation, maintenance and decommission of Inland Rail project.	ARTC will assess and confirm opportunities for beneficial use and re-use of materials under the end of waste (EOW) framework. If appropriate to do so, ARTC will register as a resource producer to operate under an EOW code. ARTC will continue to consult with relevant local governments and waste facility operators prior to the commencement of construction to confirm the Project's approach to waste disposal and spoil management Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0149	State Agency	Outline EMP		Waste conversion calculations have not been included to determine if volume of waste streams have been correctly converted to tonnes when reporting generated, reused/recycled, recovered and disposed of waste streams.	Update the EIS to ensure there is the provision of waste stream volume conversion to tonnes when reporting waste distribution for consistency with the Department of Environment and Science reporting requirements.	Chapter 22: Waste and Resource Management, Section 22.3 discusses the basis of assessment, limitation and assumptions for waste and resource management includes establishing a basis of significance for waste generated from the Project. Assessing the significance of waste-related impacts involves quantitative and qualitative analysis. Impact significance is specific to the scale of the development proposed and will be influenced by the context in which it operates (Global Sustainability Standards Board, 2021). Section 22.3 has been updated to establish an appropriate materiality threshold to represent the quantified amount and the effect that amount will have in various contexts – in this case, in the context of regional waste disposal. Construction and demolition waste for the Darling Downs-Maranoa region is estimated at 11,086 tonnes, (Recycling and Waste in Queensland 2021, Queensland Government 2021). A disposal permit from DESI would also be required for the transportation of contaminated soil by a licenced service provider to an appropriate licenced facility (Section 22.6.2).	Chapter 22: Waste and Resource Management Section 22.3 Section 22.6.2
145	145.0150	State Agency	Outline EMP		TMR requires a Construction Management Plan (CMP) to address risks to the state-controlled transport corridors which includes railway corridors and railway level crossings.	The Construction Management Plan must demonstrate that there will be no disruption to the safety and operational integrity of railway corridors and associated state-controlled-transport networks during the course of construction. The Construction Management Plan must address at least the following, among other relevant considerations: <ul style="list-style-type: none">Construction methodology and work method statements;Management of loading, ground movement and vibration impacts on state-controlled transport infrastructure;Storage locations, site accommodation facilities, laydown facilities, loading/unloading zones and vehicle access tracks;Unauthorised access prevention to the railway corridor (temporary and permanent);Maintenance of emergency/maintenance access to the railway corridor for the railway manager;Railway operational requirements and scheduled railway closures;Adherence to relevant Queensland Rail standards including but not limited to CIVILSR-002 Work in or about Queensland Rail Property and CIVILSR-016 Services under railway property (non-Queensland Rail services);Railway level crossing safety;Stormwater management. Certain aspects of the Construction Management Plan will require Registered Professional Engineer of Queensland (RPECQ) certification, for instance, a Traffic Management Plan, stormwater management and earthworks. Amend the EIS (Draft OEMP and Proponent Commitments) accordingly.	The finalised Operation Environmental Management Plan and Construction Environmental Management Plan will address the predicted environmental impacts of the adopted construction methodology for the Project. The framework for these plans is provided in Chapter 24: Draft Outline Environmental Management Plan. The Project will also develop and implement a Construction Management Plan (CMP) as the means for addressing agency concerns regarding potential impacts on State and local government infrastructure and assets. The CMP will be developed by ARTC, in consultation with relevant stakeholders as the Project scope, technical requirements and detailed design progress through post-EIS refinement. Communication protocols will be established with QFES and QPSW for the operation of the Project, to ensure that all relevant stakeholders are aware of planned (e.g. controlled burns, railway crossing closures) or unintended events (e.g. escaped fires) that have potential to impact on the provision of services by others. Safe corridor access and vehicle turnaround points will be provided in the design for maintenance work, to ensure sufficient setback while working adjacent to live railway. Maintenance and emergency access roads will be designed such that it will allow separation to prevent interaction between trains and vehicles without impeding escape or rescue activities. Traffic management arrangements for construction sites, laydown areas or non-resident workforce accommodation facility sites requiring access directly off and onto a State controlled road will need to be negotiated with and approved by DTMR. Communication protocols will be established with QFES and QPSW for the operation of the Project, to ensure that all relevant stakeholders are aware of planned (e.g. controlled burns, railway crossing closures) or unintended events (e.g. escaped fires) that have potential to impact on the provision of services by others. All works carried out on the QR property will be in accordance with the requirements of QR's Civil Engineering Technical Requirement: Work in or about Queensland Rail Property (CIVILSR-002). Key actions outlined within the Queensland Level Crossing Safety Strategy 2012-2021 (which incorporates the latest 2019 update of 'on Track to ZERO Harm') will be implemented as a proposed mitigation measure for road rail interfaces for the Project.	Chapter 24: Draft Outline Environmental management Plan
145	145.0151	State Agency	Surface Water	Scour protection	It is unclear if scour protection at culverts will extend into neighbouring properties where the corridor is narrow and the likelihood is erosion will continue past the rail corridor boundary (e.g. due to high velocities in dispersive soils). Scour/sediment transport may have a knock-on effect on adjoining landowners including state lands, plus QR/TMR drainage.	Update the EIS to confirm ARTC have a policy to extend scour protection beyond their corridor, where calculations have indicated erosion in third party properties.	Since the release of the draft EIS a preliminary Erosion Threshold Velocity (ETV) assessment has been undertaken to inform the scour and erosion protection strategy for the Project. The ETV values along the Project for a 50 per cent vegetation cover scenario have been estimated at between 0.9 and 1.2 m/s (ETV's are detailed in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). An impact assessment was then undertaken against the Flood Impact Objectives (FIO) using the Existing Case and Development Case hydraulic modelling results to define velocity changes/exceedances on properties external to the Project footprint. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. Sealed and unsealed surfaces likely to be impacted by a velocity FIO exceedance have been identified and are reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 4.2). In addition to initial scour protection requirements identified during the reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design in accordance with Austroads Guide to Road Design Part 5B: Drainage – Open Channels, Culverts and Floodways (Austroads, 2013b) (AGRD). Scour protection measures for culvert outlets have been designed to ensure that the maximum allowable flow velocities in a 1% AEP, as specified in Table 3.1 of AGRD, are not exceeded. The scour protection length and minimum rock size (d50) have been determined from Figure 3.15 and Figure 3.17 in AGRD. All required scour lengths are predicted to fit within the rail corridor.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Appendix B
145	145.0152	State Agency	Project scope		Design drawings have been included with the EIS. However, the EIS has not included detailed proposal plans on the project interface with the existing railway corridor.	Detailed design plans are required to clarify the interface of the proposed development with the South Western line and Millmerran Branch line, including but not limited to, fencing arrangements to prevent unauthorised access, earthworks, stormwater drainage, services and utilities and the design of new rail transport infrastructure and other rail infrastructure. The design of the development will need to ensure that emergency and maintenance access to the railway corridor is not obstructed or interfered with and that the existing and future operations of the railway corridors are not compromised. Additionally, the placement, design and management of stockpile areas and dangerous goods must ensure there are no adverse impacts on the railway corridor. Amend the EIS (Draft OEMP and Proponent Commitments) accordingly.	As per Chapter 5: Project Description, Section 5.3.2 and the design drawings in Appendix B1: Design Drawings, the Project's reference design is currently planned to raise and replace the existing single Queensland Rail (QR) track. The intention with upgrading and replacing the existing track is to improve QR track conditions and alignment. Utilising the existing rail corridor as feasible minimises or eliminates private and public land impacts by reducing the extent of land acquisition that may otherwise be required. Noting design, construction and operability challenges, this proposal provides significant benefits to DTMR, QR and their rail customers by: <ul style="list-style-type: none">Upgrading the formation, ballast, sleepers and rail for these sectionsReplacing the red-boarded track Section through the Condomine floodplain on the Millmerran Branch LineUpgrading track and formation design to allow 30 tonne axle loadsEliminating existing curves less than 1200 mImproving vertical gradients to a maximum of 1:80Providing track immunity to top of formation across 1% AEP floodplainsProviding turnout connections into the existing QR network and upgrades to dual gauge track granting greater interoperability for rail customers in Queensland. Ongoing consultation with QR and DTMR will continue during detailed design. As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. Queensland Fire and Emergency Services (QFES), Queensland Ambulance Service (QAS) and Queensland Police Service (QPS)) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.	Chapter 5: Project Description Section 5.3.2 Appendix B1: Design Drawings
145	145.0153	State Agency	Stakeholder engagement		The dates in Table 5.9 finishes on 23 September 2020 and gives the perception that the working group is no longer meeting.	Amend the EIS to state that fortnightly meetings are ongoing for the life of the project.	ARTC undertook engagement with Government agencies during the development of the draft EIS and revised draft EIS, as detailed in Appendix E: Consultation Report, Section 4. ARTC has updated the revised draft EIS accordingly to reflect submitter's concern.	Appendix E: Consultation Report Section 4
145	145.0154	State Agency	Approvals/conditions/recommendations		The first paragraph states: The decision by the Coordinator-General about whether to approve the Project will be made public via DSDIP's and ARTC Inland Rail's websites. This wording is potentially incorrect, as the Coordinator-General will determine whether the project can proceed.	Consider revising the wording to ensure accuracy.	Chapter 3: Legislation and Project Approvals Process has been updated (no longer incorporating draft EIS wording). At the conclusion of the SDPWO Act EIS process, the Australian Government Minister for the Environment will receive a copy of the Coordinator-General's evaluation report and will take this report into account when making a decision under the EPBC Act. The Australian Government Minister for the Environment will make a decision on whether to approve the Project, and if it is approved, with or without conditions (Section 3.2.2). Section 3.2 details the remaining steps in the coordinated Project process remain to be completed: <ul style="list-style-type: none">The revised draft EIS will be required to be placed for public notification. Submissions can be made to the Coordinator-General to be considered during evaluation of the revised draft EIS.The Coordinator-General will evaluate the revised draft EIS and may accept it as the final EIS.If accepted as final, the Coordinator-General prepares a report on the final EIS consistent with the requirements of the SDPWO Act. These steps are illustrated in Figure 3-2 of Chapter 3: Legislation and Project Approval Process. Following approval of the EIS and the Draft Outline Environmental Management Plan, the Construction Environmental Management Plan will incorporate Conditions of Approval into the management plans and Plans for the Project (see Chapter 24: Draft Outline Environmental Management Plan).	Chapter 3: Legislation and Project Approvals Process Section 3.2.2 Figure 3-2 Chapter 24: Draft Outline Environmental Management Plan
145	145.0155	State Agency	Stakeholder engagement		There is no mention of a Stakeholder Risk Register, not having a Stakeholder Risk Register may jeopardise the Queensland Government's commitment to ensuring Queensland gets the best outcome from the project, and that the Australian Government considers and responds appropriately to issues raised by Queenslanders.	Update the EIS to include the requirement for ARTC to develop and maintain a Stakeholder Risk Register (sometimes referred to as a Risk Log) to detail all identified risks, including description, category, cause, probability of occurring, impact(s) on objectives, proposed responses, owners, and current status. Update the EIS to include a document which outlines the results of the Project's qualitative risk analysis, quantitative risk analysis, and risk response planning for Stakeholder Engagement.	ARTC maintains a Project risk register and stakeholder risks are captured within this. A high level risk impact assessment summary is provided in Chapter 21: Hazard and Risk Section 21.7. ARTC continues to monitor Project risks and update the Project register, including stakeholder risks.	Chapter 21: Hazard and Risk Section 21.7
145	145.0156	State Agency	Flora and Fauna		The Terrestrial Ecology and Technical Report has not been undertaken in accordance with TMR's Interim Management Manual (SMM), SMM Appendix 2 soil forms, TMR Soil Group classifications and CSIRO Clay Mineralogy Maps.	In the absence of any nominated ARTC standard, update the EIS to include the requirement to identify, assess, ameliorate and manage the project soils as per the TMR Interim SMM, SMM Appendix 2 soil forms, TMR Soil Group Classifications Map and CSIRO Clay Mineralogy Maps. Amend the EIS accordingly.	ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at 1:10,000 scale in consultation with DoR. Soil management units from the investigation are provided in Section 4.5. This level of investigation is sufficient to allow determination of the suitability of the soils and to manage the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides site-specific soil management measures in Section 3.3.	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Appendix J: Soil Assessment Report Section 3.3a-2 Appendix J: Soil Assessment Report Section 4.5 Figure 3.16
145	145.0157	State Agency	Flora and Fauna		It is industry standard that the technical report be undertaken by a suitably qualified soil practitioner and with consideration to the study team Chapter that does not appear to be the case. A Certified Professional Soil Scientist is required to undertake soil surveying, assessment and management as per TMR's interim SSM.	It is recommended that a Certified Professional Soil Scientist undertake soil surveying, assessment and management as per the Interim TMR Soil Management Manual.	A detailed soil investigation has been undertaken at an intensity to enable mapping at a 1:10,000 scale (see Appendix J: Soil Assessment Report). Appendix J: Soil Assessment Report has identified soil management units to inform appropriate soil management plans (as described in Appendix J: Soil Assessment Report, Section 1.3). The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2008), the Australian soil and land survey field handbook (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). The soil investigation report (refer to Section 5.0 of Appendix J: Soil Assessment Report) provides detailed soil profile descriptions and laboratory results. Findings from the detailed soil investigation have been incorporated into Chapter 9: Land Resources. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2008), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). A suitably qualified certified professional soil scientist prepared the soil survey report, on behalf of ARTC in revised draft EIS Appendix J: Soil Assessment Report, Appendix C. The information provided for the baseline assessment data is considered fit for purpose for the EIS and meeting its intended objectives. A Certified Professional Soil Scientist (CPSS) has peer reviewed the report and determined it meets the requirements in its current form. This was undertaken by a Suitably Qualified/Trained Soil Scientists, and the review (including soil management plan) was undertaken by a third-party CPSS (Certification number: s1434). The soil survey work, data collection and laboratory analysis updates have been reflected in Chapter 9: Land Resources.	Chapter 9: Land Resources Appendix J: Soil Assessment Report Section 1.3 Section 5.0 Appendix C

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0158	State Agency	Surface Water		The Surface Water Quality Technical Report, in relation to the management of project soils, has not been undertaken in accordance with TMR's Interim Management Manual (SSM), SMM Appendix 2 soil forms, TMR Soil Group classifications and CSIRO Clay Mineralogy Maps.	In the absence of any nominated ARTC standard, include the requirement to identify, assess, ameliorate and manage the project soils as per the TMR Interim SSM, SMM Appendix 2 soil forms, TMR Soil Group Classifications Map and CSIRO Clay Mineralogy Maps. Amend the EIS accordingly.	Section 9.3.2 of Chapter 9: Land Resources describes the mapping and management of Project Soils. Soils along the Project alignment have been assessed according to the Australian Soil Classification Mapping (2016) and described in Appendix S: Surface Water Quality Technical Report, Section 4.5.2. Mitigation and management of soil measures will be implemented as part of a Soil Management Sub Plan, according to the International Erosion Control Association Best Practice Erosion and Sediment Control 2008. This includes management of problem soils, in Table 9-29 of Chapter 9: Land Resources, such as: <ul style="list-style-type: none"> Acid sulfate soils, which may occur in proximity to wetland features and water storages Erosive or dispersive soils, such as sodosols that are expected to be encountered between the Macintyre River and Yelarbon as well as along the fertile lands north of Inglewood to the west of Kooroongarra Cracking clays (vertosols) that are expected to be encountered between Kooroongarra and Millmerran and from Yandilla to Gowrie Saline soils, particularly in high salinity hazard areas such as between Kurumbul and Yelarbon. In addition to the mitigation measures identified in Table 7.1 of Appendix S: Surface Water Quality Technical Report and as part of the Detailed Design stage, when finalised positions of infrastructure elements (e.g. abutments/piers etc.) are known and detailed soil surveys are complete, geomorphological assessment of identified risk locations will be undertaken. <p>The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan, provides further context and the framework for implementation of these proposed mitigation and management measures.</p>	Chapter 9: Land Resources Section 9.3.2 Table 9-29 Chapter 24: Draft Outline Environmental Management Plan Appendix S: Surface Water Quality Technical Report Section 4.5.2 Table 7.1
145	145.0159	State Agency	Surface Water	Scour protection	The EIS states that all required scour lengths were predicted to fit within the rail corridor. Topography, erodibility and velocities may well dictate that scour extends beyond the boundary. It is unclear what allowance has been made should scour protection be required to extend beyond the corridor boundary and impinge on third party property (e.g. into cropping land or highway corridor).	Update the EIS to confirm ARTC have a policy to extend scour protection beyond their corridor, where calculations have indicated erosion in third party properties.	Since the release of the draft EIS a preliminary Erosion Threshold Velocity (ETV) assessment has been undertaken to inform the scour and erosion protection strategy for the Project. The ETV values along the Project for a 50 per cent vegetation cover scenario have been estimated at between 0.9 and 1.2 m/s (ETV's are outlined in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). <p>An impact assessment was then undertaken against the Flood Impact Objectives (FIO) using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Project footprint. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. Sealed and unsealed surfaces likely to be impacted by a velocity FIO exceedance have been identified and are reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 4.2).</p> <p>In addition to initial scour protection requirements identified during the reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design in accordance with Austroads Guide to Road Design Part 5B: Drainage – Open Channels, Culverts and Floodways (Austroads, 2013b) (AGRD). Scour protection measures for culvert outlets have been designed to ensure that the maximum allowable flow velocities in a 1% AEP, as specified in Table 3.1 of AGRD, are not exceeded. The scour protection length and minimum rock size (d50) have been determined from Figure 3.15 and Figure 3.17 in AGRD. All required scour lengths are predicted to fit within the rail corridor.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2
145	145.0160	State Agency	Flooding	Road safety	Proposed works and impacts on state-controlled roads even if they are included within the project footprint need to be clearly understood. However, no detail of proposed road works are included within the EIS. As it is, impacts on state-controlled roads are not acceptable to TMR and in some cases (i.e. Yelarbon) not even understood, as a levee raise is currently proposed affecting the Cunningham Highway. If affluxes are due to road works, this need to be documented in detail for TMR to have an informed position to comment.	TMR recommends that in addition to updating the EIS as requested in TMR's other comments, ARTC create a separate impacts memorandum that details flooding and hydrology impacts to State-controlled roads discuss that impacts memorandum directly with TMR and the impact of proposed works within and outside the project footprint. A higher level of detail is required to clearly identify all impacts in state-controlled roads due to the proposed railway and ancillary roadworks.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. <p>All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.</p>	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0161	State Agency	Flooding	Modelling	Recommend an additional afflux reporting band in accordance with TMR's Hydrology and Hydraulic Modelling Guidelines. Additional band should be between +10 and +20 mm (then 20-50, etc.) as often afflux in sensitive areas can end up just above 10 mm and with only one band covering 10-50, it is not possible to tell visually whether the afflux is just in excess or a lot in excess.	Add an additional afflux reporting bands in accordance with TMR's Hydrology and Hydraulic Modelling Guidelines. Additional band should be between +10mm and +20 mm (then 2050 mm, etc.)	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. <p>All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.</p>	Chapter 14: Flooding and Geomorphology Section 14.5.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0162	State Agency	Flooding		It is unclear what the Projects approach is to temporary works. Whilst it is appreciated the details of temporary works are not known in detail at this stage, this Project is understood to involve significant and separable earthworks packages, major bridge packages, etc all of which will involve temporary placement of filling within floodplains, hence the potential for hydraulic impacts is significant.	Outline proposed approach to how the flooding, stormwater and drainage impacts of temporary works impacts will be managed.	The revised draft EIS Chapter 24: Draft Outline Environmental Management Plan, outlines the use of temporary and permanent mitigation measures that will be implemented to reduce localised impact from Pre-Construction Activities and Early Works, Construction Works and Operations stages, as detailed in the 'Surface Water' and 'Hydrology & Flooding' sections of the chapter. <p>During future stages, through consultation with the selected contractor team and in line with their construction methodologies, requirements and scheduled duration details of temporary works located near waterways and in floodplains will be confirmed and designed. Where necessary and using the advanced construction detail an appropriate level of hydraulic modelling for temporary works will be undertaken to evaluate the effects of the temporary works on the local hydrological conditions.</p> <p>Based on the outcomes of the hydraulic modelling analysis, appropriate mitigation measures will be determined. These measures may include design adjustments, installation of additional structures or features, or implementation of specific construction techniques to minimize any adverse impacts on the waterways and floodplains. The objective is to ensure that the temporary works are implemented in a manner that preserves the integrity of the surrounding environment and safeguards against any potential detrimental effects.</p> <p>The results of the hydraulic modelling analysis and the proposed mitigation measures will be incorporated into the Detailed Design stage of the Project. This will ensure that the final design accounts for the specific considerations related to the temporary works in waterway and floodplain areas.</p>	Chapter 24: Draft Outline Environmental Management Plan
145	145.0163	State Agency	Flooding	Modelling	Section 4.2 and 4.2 states/implies that design events between 20% AEP (1 in 5) and PMF have been considered for impact assessment. It is unclear if frequent type floods (63% and 39% AEP) have been considered. Frequent flood events are the most likely type of flooding to be of concern for many rural areas, where drainage can be more important than flooding.	Ensure all relevant stormwater and flooding events have been considered and assessed: 63.2%, 50%, 39%, 20%, 10%, 5%, 2% and 1% AEP, noting that for rural areas, frequent flooding events (63% and 39%) AEP are of particular concern. Amend the EIS accordingly.	Events from 20% AEP up to 1% AEP, 1 in 2000, 1 in 10,000 and PMF have been assessed. Under the 63% and 39% AEP size of events flows will likely be predominantly contained to existing drainage channels and provision of structures to convey the 1% AEP flows will maintain the flow distribution under these smaller events. Therefore impacts will be minimal. During future design stages the relevance of modelling smaller AEP events as proposed will be assessed, mainly for the purpose of construction planning. <p>The flood modelling conducted for the Border to Gowrie Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Details on flooding for the Project are detailed in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1
145	145.0164	State Agency	Flooding	Modelling	It is unclear what the hydraulic approach to new railway corridor fencing is within the flood modelling, especially where mesh is tight, and debris can catch. This type of fencing could impact local farm drainage performance.	Clarify the approach to new railway corridor fencing within the flood modelling, particularly where this may cause blockages, catch debris or affect local farm drainage performance. Amend the EIS accordingly.	Based on this consultation feedback from adjacent landowners regarding fencing on the Condamine River floodplain fencing of the rail corridor has not been included in the revised reference design for the Project, across floodplain areas. Instead, guideposts or other alternative means of rail corridor boundary protection will be installed in order to demarcate the rail corridor and deter access to the rail corridor. The track elevation through these areas will also act as a deterrent to trespass or livestock access to the railway, where this may otherwise occur. <p>It is acknowledged that inappropriately placed fencing and/or inadequately designed fencing could cause debris to catch during flood events and impact local drainage performance. During detailed design specific consideration will be given to this aspect on a case-by-case basis. Consultation with affected landowners will be undertaken on a case-by-case basis to ensure that the fencing solution ties in with local farming practises.</p>	Chapter 5: Project Description
145	145.0165	State Agency	Flooding		The types of noise barriers to be used with the project are yet to be determined/finalised. However, the noise barriers may affect the project's hydraulic and flooding impact. It is unclear how this impact has been considered, if at all.	Amend EIS to clarify how the impact of noise barriers can be included in the flood modelling, and how their impact can be suitably mitigated and managed. In addition to not worsening the flood impact, noise barriers should be aesthetically pleasing.	Noise barriers are proposed at Yelarbon, Brookstead and Pittsworth. These structures have been included in the hydraulic models, and accounted for in the Flood Impact Assessment reported in Section 14.10 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.10
145	145.0166	State Agency	Flooding	Modelling	Appendix Q Hydrology and Flooding Technical Report should be revised to demonstrate that the management of stormwater and flooding post-development can achieve a no worsening impact (on the pre-development condition) to State transport corridors for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP).	Appendix Q - Hydrology and Flooding Technical Report (reference 3100 and document number 2-0001-310-EAP-10-RP-0213) should be revised to demonstrate that the management of stormwater and flooding post development can achieve a no worsening impact (on the pre-development condition) for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP). In particular provide a revised hydraulic and hydrological analysis demonstrating the design flood peak discharges for the site and surrounding area which exist in the pre and post development scenarios for all flood and stormwater events up to a 1% Annual Exceedance Probability addressing the following: <ul style="list-style-type: none"> At least the following flood and stormwater events: 63.2%, 50%, 39%, 20%, 10%, 5%, 2% and 1% AEP. The flood model needs to adequately encompass the existing and future railway corridor. Mapping (afflux, water level/depth and velocity) should be provided to clearly illustrate the pre-development scenario, and the post development impacts for all relevant design events. Maps scales should be altered to clearly show the potential impacts on the state-controlled transport corridors. The afflux maps should be revised so that a negligible impact is referred to as +/- 10 mm. The report should demonstrate that flood storage capacity is maintained on the site with the development and any early temporary works. Overland flow paths/hydraulic conveyance should be maintained on the site as part of the proposed development. The flood model should be underpinned by a revised General Arrangement Plan which clearly shows the pre and post development impervious area on the site. The flood model should be underpinned by an earthworks plan that clearly shows the location and extent of proposed excavation and filling (earthworks), including likely volumes of cut and fill and the resulting cut: fill balance. The revised report should take into account all comments/recommendations preceding/above. Include details of the mitigation measures proposed to address any potential stormwater and flooding impacts of the proposed development. 	The impacts of nominated flood events during operation of the Inland Rail Project have been assessed and quantified as part of the Hydrology and Flooding Assessment, and reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 14: Flooding and Geomorphology of the revised draft EIS. <p>In addition a Surface Water Management Plan will be developed as a component of the Construction Environmental Management Plan (CEMP), which will include Stormwater Management for the Project. The Surface Water Management Plan will cover Stormwater Management and will be developed in consultation with DOR and DES prior to implementation for construction.</p>	Chapter 14: Flooding and Geomorphology Appendix T1: Hydrology and Flooding Technical Report - Volume 1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0167	State Agency	Flooding	Modelling	Although standards currently do not mention them, a risk assessment may be required for extreme events larger than 2000-year AEP. This comment applies for all sections where there are large impacts during extreme events. Mitigation measures may be necessary/proposed (including more drainage structures).	Amend the EIS documents to analyse and mitigate impacts during extreme events larger than 2000yr AEP.	Extreme events including the 2000-year, 10000-year and Probable Maximum Flood (PMF) events have been assessed to understand potential impacts and risks. The outcomes of this assessment are reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 21) and Chapter 14: Flooding and Geomorphology (Section 14.8). Corresponding risk mapping for extreme flood events has also been developed and is presented in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 (Sub-Appendix Q and R) as well as the digital platform.	Chapter 14: Flooding and Geomorphology Section 14.8 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 21 Appendix T2: Hydrology and Flooding Technical Report - Volume 2 Appendix Q Appendix R
145	145.0168	State Agency	Flooding		It is unclear why impacts to flood sensitive receptors are not included in Section 19.6.3.2.	Amend the EIS to include flood sensitive receptors.	Section 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS has been updated to reflect further modelling undertaken recently for the Macintyre River at the request of DPIE. The updates include a review of impacts to Flood Sensitive Receptors. Section 14.8.1 of Chapter 14: Flooding and Geomorphology has also been updated.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 17
145	145.0169	State Agency	Flooding	Scour protection	It is recommended in TMR's Bridge Scour Manual (cited in References at Section 4.4) that specialist assessment by a geomorphologist is undertaken of bridge sites in order to understand the natural scour context of the site so as to build in appropriate allowances in the bridge design for future scour. This general issue is considered particularly important for the study area because of known scour issues associated with "black soil country". There is no evidence of specialist geomorphic assessment of the existing environment at proposed bridge sites in the EIS.	Amend the draft EIS and supporting documents to include specialist geomorphic assessment and input for all proposed bridge sites. Such advice is also advisable for culverts in sensitive areas.	A Geomorphology assessment has been carried out in accordance with the requirements. The outcomes of the Geomorphology assessment are reported in Appendix H: Geomorphology Assessment and Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Appendix H: Geomorphology Assessment
145	145.0170	State Agency	Flooding	Increase in time of submergence	Table 4.2 No impact criteria is nominated for existing rail transport infrastructure and railway corridor land. As for state-controlled roads, TMR and QR require a no-worsening criterion to any existing rail infrastructure and rail corridor land (i.e. no impact to the existing local immunity of the railway; no increased risk of subgrade submergence or time of submergence).	Amend the EIS to nominate appropriate impact criteria for existing rail transport infrastructure, other rail infrastructure and railway corridor land. This should be that the post development scenario can achieve a no worsening impact (on the pre-development condition) for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP). This should include at least the following flood and stormwater events: 63.2%, 50%, 39%, 20%, 10%, 5%, 2% and 1% AEP. Stormwater management for the proposed development must ensure no worsening or actionable nuisance to existing railway corridors, including rail transport infrastructure and other rail infrastructure, caused by peak discharges, flow velocities, water quality, sedimentation and scour effects. Flood storage capacity is maintained on the site with the development. Overland flow paths/hydraulic conveyance should be maintained on the site as part of the development.	Flood Impact Objectives (FIO) for a range of AEPs have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0171	State Agency	Flooding		The criteria (other than the water level criteria) in Table 4.2 are vague and not definitive. For example, the extreme event criteria of no unacceptable or unexpected impacts is totally subjective. Best practice is to nominate definitive criteria based on avoidance of actionable nuisance or damage.	Nominate appropriate definitive criteria in Table 4.2 for stormwater and flooding in accordance with best practice and avoid vague criteria. Amend the EIS accordingly.	Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
145	145.0172	State Agency	Flooding		Other relevant standards/guidelines for design of transport infrastructure in Queensland are: <ul style="list-style-type: none"> Road Drainage Manual (TMR 2019) Hydrology and Hydraulic Modelling Guidelines (TMR 2019) TMR Standard Drawings (various drawings cover drainage structures) Queensland Rail Standard Drawings (various drawings cover drainage structures) Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia. Australian Institute for Disaster Resilience (2017) State Planning Policy State Interest Guidance Material Natural hazards, risks and resilience Flood. Department of Infrastructure, Local Government and Planning (2017) Austrroads Guide to Bridge Technology Part 8: Hydraulic Design of Waterway Structures 	Amend the EIS and supporting documents as appropriate to refer to all relevant standards/guidelines concerning flooding and stormwater management.	A review of the suggested additions to the list of flood related standards and guidelines was undertaken with the following approach adopted: <ul style="list-style-type: none"> Road Drainage Manual (TMR 2019) - the 2019 version was not issued when the Project's flood impact assessment was undertaken and therefore has not been included but the 2014 version will be referenced in the revised draft EIS Chapter 14: Flooding and Geomorphology. Hydrology and Hydraulic Modelling Guidelines (TMR 2019) - this document was published after the impact assessment was undertaken and therefore has not been included in the EIS. TMR Standard Drawings (various drawings cover drainage structures) - These drawings are focused on design of drainage structures associated with roads and therefore relevant to the road drainage design Queensland Rail Standard Drawings (various drawings cover drainage structures) - These drawings are focused on design of drainage structures associated with QR rail lines and therefore relevant to the drainage design at the ARTC/QR rail interface Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia. Australian Institute for Disaster Resilience (2017) - has been referenced in the revised draft EIS - Chapter 14: Flooding and Geomorphology. State Planning Policy State Interest Guidance Material Natural hazards, risks and resilience Flood. Department of Infrastructure, Local Government and Planning (2017) - SPP as a whole has been included in Section 4.3 of the Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Austrroads Guide to Bridge Technology Part 8: Hydraulic Design of Waterway Structures - Included in Table 14-1 of the revised draft EIS - Chapter 14: Flooding and Geomorphology. The next stages of design will further consider these standards/guidelines where relevant to the Project.	Chapter 14: Flooding and Geomorphology Table 14-1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.3
145	145.0173	State Agency	Flooding	Increase in time of submergence	The Cunningham Highway (crossing near the bridge) flood impact data indicates that with the rail alignment, the 1% AEP depth of inundation increases by 190 mm on the eastern side. The time of submergence increase to 911 hours depending on 5% AEP to 1% AEP event on eastern side, and the increase in time of submergence on the western side is about 1528 hours depending on 5% AEP to 1% AEP event.	TMRs position is that impacts resulting from the project should be no net worsening and an increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely to be required to reduce this impact. Flood resilient pavements would need to be designed and constructed depending on the location. Amend the EIS accordingly.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0174	State Agency	Flooding	Increase in time of submergence	The Yelarbon-Keetah Road flood impact data indicates that with the rail alignment the 2% AEP time of submergence increases by 14 hours.	TMRs position is that impacts resulting from the project should be no net worsening and an increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely to be required to reduce this impact. Flood resilient pavements would need to be designed and constructed depending on the location. Amend the EIS accordingly.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0175	State Agency	Flooding	Increase in time of submergence	The Gore Highway flood impact data in Table 9.45 indicates that with the rail alignment the 2% and 1% AEP time of submergence will increase by 13 and 12 hours respectively.	TMRs position is that impacts resulting from the project should be no net worsening and an increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely required to reduce this impact. Flood resilient pavements would need to be designed and constructed depending on the location. Amend the EIS accordingly.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0176	State Agency	Flooding		Table 4.1 of the hydraulic report identifies several performance design criteria for the project, but it is unclear what Representative Concentration Pathway (RCP) is considered for climate change.	Amend the EIS to clarify which representative concentration pathway (RCP) is considered for climate change.	Climate change and the selected Representative Concentration Pathway are discussed throughout Chapter 14: Flooding and Geomorphology and Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS (within the climate change assessment of each floodplain section). For the avoidance of doubt the RCP 8.5 (2090 horizon) climate change scenario has been adopted for the Project.	Chapter 14: Flooding and Geomorphology Appendix T1: Flooding and Hydrology Technical Report - Volume 1
145	145.0177	State Agency	Flooding	Increase in peak water levels	Table 4.2 identifies flood impact objectives for the project where the change in peak levels identifies sections where up to 400 mm localised afflux is accepted. An increase in 400 mm localised afflux can be significant.	TMRs recommend 200 mm should be treated as the limit and affluxes larger than 200 mm as non-compliances and review and accept on a case by case basis. Amend the EIS accordingly.	Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0178	State Agency	Flooding	Flood immunity	Apart from the water level criteria, these criteria are not definitive, but vague. For example, the extreme event criteria of "no unacceptable or unexpected impacts" is totally subjective. Best practice is to nominate definitive criteria based on avoidance of actionable nuisance or damage.	Amend the EIS to nominate appropriate definitive criteria in accordance with best practice (for example, but not limited to, add a maximum afflux criterion for events larger than 1% AEP to Table 4.2.)	Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0179	State Agency	Flooding	Flood immunity	The afflux nominated as acceptable impacts for "roads" was not agreed to by TMR as being appropriate for state-controlled roads. TMR will insist on a no-worsening criteria to any state controlled road i.e. no impact to the local immunity of the road, no increased risk of water on the pavement and no increase in the time of submergence to the road.	Amend the EIS and project to clarify and comply with TMR's requirements for state-controlled infrastructure (road and rail) (i.e. no net worsening).	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0180	State Agency	Flooding	Mitigation measures	The EIS identifies that risks posed through climate change will be dealt with via sensitivity analysis. Climate change mitigation measures should be incorporated into the design, in particular for parts of the infrastructure that are difficult to modify later.	Amend the EIS to incorporate climate change mitigation measures within the design, rather than just as a sensitivity analysis.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2
145	145.0181	State Agency	Flooding	Modelling	Section 7.4.1.2 related to the January 2011 calibration event states that there was a problem in the rating curve of the gauge, but it is unclear if the recorded flows were re-rated.	Amend the EIS to confirm whether the recorded flows were re-rated as a consequence of the problem in the rating curve.	The modelling for Gowrie Creek has updated at the request of the Independent International Expert Flood Panel, and the revised draft EIS has been updated with the latest modelling results. Please refer to Section 5 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5
145	145.0182	State Agency	Flooding	Blockage of drainage structures	Section 7.9.4 relates to a sensitivity analysis for Gowrie Creek, but the report identifies that blockage was assessed in accordance with Australian Rainfall and Runoff 2016 (ARR2016). Blockage should be included in the design in accordance with ARR2016 rather than as part of the sensitivity analysis.	Recommend amending the EIS to include blocking as part of the design in accordance with Australian Rainfall and Runoff 2019.	Blockage is included in the revised Reference Design for all culverts with an assumed 25% blockage factor. Please refer to Section 5.5 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS which states: "A blockage factor of 25% was applied to all proposed culverts based on guidelines set out in ARR 2019". In addition, a sensitivity analysis was undertaken with 0% and 50% blockage to gain an understanding of potential impacts on Flood Sensitive Receptors for these additional blockage scenarios.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5.5
145	145.0183	State Agency	Flooding	Flooding	Section 8.6.3.3 identifies the impacts of the project on state-controlled roads. Table 8.30 indicates that for 1% AEP the depth of inundation for Toowoomba-Cecil Plains Road (a state-controlled road) increases by 70 mm and time of submergence increases by 1.1 hours (on top of top of 330 mm existing inundation). This impact is not considered negligible and is not acceptable to TMR. Additionally, afflux maps in the Appendix seem to suggest larger impacts in the order of 500 mm are observed at the crossing of Inland Rail with Toowoomba-Cecil Plains Road and is not clear if the proposed intersection is an overpass (rail over road or road over rail).	Consistent with TMRs previous advice, TMRs position is that impacts resulting from the project should be no net worsening and a 70 mm increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely required to reduce this impact. Amend the project and EIS accordingly. Flood resilient pavements would need to be designed and constructed depending on the location. Additionally, further detail and information (afflux maps, drainage structure info, etc) is required to understand this impact for all events including extreme events.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0184	State Agency	Flooding	Modelling	Section 9.3.5 states that calibration for the hydraulic model was based upon comparisons made between hydrographs at key gauge locations as well as level and depth comparisons at both anecdotal flood markers and surveyed floodmarks. Further calibration and validation are likely required, including further comparison to floodmarks and anecdotal evidence (in particular for location 12) to further ensure the credibility of the models.	It is recommended that further calibration/validation be undertaken in particular for comparison to floodmarks and anecdotal evidence for locations e.g. flood marker 12 which have poor matches. Amend the EIS accordingly.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.6
145	145.0185	State Agency	Flooding	Increase in time of submergence	The Millmerran-Leyburn Road flood impact data indicates that with the rail alignment the 2% AEP depth of inundation will increase by 60 mm on the eastern side of crossing and decrease by 440 mm on western side of crossing. Similarly, the time of submergence increases by 3 hours on the eastern side and decreases by 4 hours on western side. However, for a 20% AEP event, the time of submergence increases by 40 hours. An increase in velocity is also identified and will need mitigation.	TMRs position is that impacts resulting from the project should be no net worsening and an increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely required to reduce this impact. Flood resilient pavements would need to be designed and constructed depending on the location. Additionally, further detail and information (afflux maps, drainage structure info, etc) is required to understand this impact for all events including extreme events.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0186	State Agency	Flooding	Blockage of drainage structures	It is possible blockage played a role during historical events and might help with calibration.	For noting and consideration in the EIS.	Noted and ARTC considered this guidance when updating the Gowrie Creek flood modelling for the revised draft EIS. The flood modelling conducted for the Border to Gowrie Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Chapter 14: Flooding and Geomorphology Section 14.4 and the supporting technical reports. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.4
145	145.0187	State Agency	Flooding	Flooding	The Millmerran-Inglewood Road flood impact data indicates that with the rail alignment the 2% AEP depth of inundation will increase by 10 mm. However, for a 20% AEP event, the time of submergence increases by 5 hours. The afflux maps in Appendix (Figure D-5E) seem to show larger impacts in the order of 50 to 100 mm observed just upstream of the crossing of project alignment with Millmerran Inglewood Road due to the colour palette used for the maps. As in TMRs other comment, it is not clear if the proposed intersection is an overpass (rail over road or vice versa). Similarly, the afflux maps in Appendix D (Fig. F4-E) seem to show larger impacts in the order of 200 to 500 mm observed at Millmerran-Inglewood road at locations other than those reported.	TMRs position is that impacts resulting from the project should be no net worsening and an increase will not be accepted. Therefore, further mitigation measures (cross drainage structures) by the project is likely required to reduce this impact. Flood resilient pavements would need to be designed and constructed depending on the location. Amend the EIS to clarify if larger impacts are the case and provide further detail and information (afflux maps, drainage structure info, etc) to allow TMR to understand this impact for all events including extreme events. This should include any potential mitigation measures required to reduce the impact. Amend the project and EIS accordingly.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0188	State Agency	Flooding	Flooding	Afflux Maps in Appendix J (Fig. J4-E) seem to show significantly larger impacts in the order of 500 mm observed at the Cunningham Highway (south of proposed levee) and Yelarbon Kestah Road at locations, more than those reported. These impacts on the Cunningham Highway are not considered negligible and are not acceptable to TMR. Also, it is not clear how if the proposed levee will interact with the Cunningham Highway (levee over road or vice versa).	Amend the EIS to provide additional information (afflux maps, drainage structure info, etc) to understand the impacts for all events including extreme events. This should include any required mitigation measures including additional drainage structures etc.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0189	State Agency	Flooding	Modelling	Inglewood-Texas Road and Texas-Yelarbon Road (State-controlled roads) are listed as floodplain infrastructure within the Macintyre Brook floodplain in Section 3.2 of Appendix Q1. Section 16 of Appendix Q1 contains the floodplain analysis for Macintyre Brook and it does not include any data or references to these roads.	detailed design.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0190	State Agency	Flooding	Flooding	The EIS refers to established rail lines as 'Existing QR Rail Line'. There is more than one existing QR Rail Line in the Project area and therefore it is difficult to determine which line is being referred to.	Amend the EIS to refer to existing QR rail lines by their name.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0191	State Agency	Flooding	Increase in peak water levels	Some of the tables appear to have incorrectly calculated (summarised) the change in AAToS and depth of inundation between the existing and developed cases. For example, the change in AAToS appears miscalculated for the Warrego Highway (Table 7.39).	Amend the EIS to clarify and accurately reflect the change in flood depth, inundation length, TOS and AAToS cause by the project for all state-controlled roads and rail lines.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0192	State Agency	Flooding		Pampas-Horrane Road (Table 9.45) and the Cunningham Highway (Table 16.34). Similarly, the change in inundation appears miscalculated for the Cunningham Highway (Table 16.28 and 16.31). The EIS does not provide data (other than overtopping depths) for existing QR rail lines located in floodplains. It also does not state the change in inundation length for road and/or rail infrastructure.	nil.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on State-controlled roads exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts to State-controlled roads' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of road, including a corresponding summary Table itemising all exceedances associated with the impacted sections of road. A condensed summary of flood impact objective exceedances at State-controlled roads is also provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with DTMR in relation to mitigation for flood impacts to State Controlled Roads, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
145	145.0193	State Agency	Groundwater		It is unclear if the absence of a Groundwater Dependent Ecosystem (GDE) means the area was surveyed and no GDEs were found or that the GDE has no record for that area.	Update the EIS to clarify what the Atlas is indicating to the study and amend the Appendix and relevant EIS Chapter accordingly.	Revised draft EIS Chapter 15: Groundwater Section 15.5 discusses the approach for how GDEs were identified. As outlined in Section 15.5.6 of Chapter 15: Groundwater, the BoM has developed a Groundwater Dependent Ecosystems Atlas (GDE Atlas) as a national dataset of Australian GDEs and potential GDEs which was used to identify potential GDEs for the groundwater impact assessment (see Appendix U: Groundwater Technical Report Section 4.7.6 and 9). The GDE Atlas contains information about three types of ecosystems: <ul style="list-style-type: none"> ▶ Aquatic ecosystems that rely on the surface expression of groundwater—this includes surface water ecosystems that may have a groundwater component, such as rivers, wetlands, and springs. Marine and estuarine ecosystems can also be groundwater dependent, but these are not mapped in the Atlas. ▶ Terrestrial ecosystems that rely on the subsurface presence of groundwater—this includes all vegetation ecosystems. ▶ Subterranean ecosystems—this includes cave, karst and aquifer ecosystems. No subterranean GDEs have been mapped within 5 km of the groundwater impact assessment area. The groundwater impact assessment area for GDEs was expanded to 5 km from the Project as a conservative approach. Additional details are provided in Appendix U: Groundwater Technical Report, Section 4.7.6. Additional details on GDEs identified within the groundwater impact assessment area, in relation to ecological function and surface water quality are discussed in Chapter 11: Flora and Fauna and Chapter 13: Surface Water, respectively. The GDE Atlas indicates that there are no high potential aquatic GDEs located within 5 km of the Project alignment. Areas where potential aquatic GDEs are identified within 5 km are outlined in Chapter 15: Groundwater Section 15.5.6. The location of potential aquatic GDEs in relation to the Project footprint and groundwater assessment area are shown in Figure 15-22a-d and 15-23a-d (Chapter 15: Groundwater).	Chapter 15: Groundwater Section 15.5.6 Figure 15.22a-d Figure 15.23a-d Appendix U: Groundwater Technical Report Section 4.7.6 Section 9
145	145.0194	State Agency	Groundwater	Survey effort/field investigation data	It is unclear whether one round of water sampling from two years ago is enough to satisfy the requirements of ToR.	Office of the Coordinator-General to confirm if one round of water sampling from 2 years ago is sufficient to satisfy the requirements of the ToR.	Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The groundwater management and monitoring program (GMMP) has been updated as part of the revised draft EIS to reflect the current bore network and ongoing baseline monitoring program and the requirements for each Project stage (Chapter 15: Groundwater Section 15.4.2, Table 15.3 and Section 15.7.3).	Chapter 15: Groundwater Section 15.4.2 Section 15.7.3 Table 15-3
145	145.0198	State Agency	Noise and Vibration	Operational rail noise	It is unclear if the operational noise assessment considered the scenario D where one train is waiting on the passing loop with its engines running, plus another train is on the mainline also with its engines running.	Update the EIS to confirm combined noise levels were modelled where receptors are present.	Section 12.1 of Appendix W: Noise and Vibration Assessment - Railway Operations notes that the assessment of railway noise levels included the contribution of railway operations at crossing loops. A review of the predicted noise levels at the sensitive receptors determined the noise level contribution from the crossing loops were up to $L_{Aeq}(24\text{hour})$ 40 dBA and SEM of 67 dBA. The predicted noise levels from the crossing loops were within the established criteria and are lower than the railway noise levels from the daily train passby events on the main line (4.5 m from the crossing loop), and hence are not a significant influence on the overall daily predicted noise levels and SEM at the sensitive receptors.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 12.1
145	145.0199	State Agency	Noise and Vibration	Operational rail noise	Section 11.6 states that: "when the trains depart from crossing loops the locomotives are required to initially operate under a high notch setting from a standing position. This can cause higher noise emissions but would not be expected to influence the noise levels over the 15-hour daytime and 9-hour night-time assessment periods. This statement is confusing and somewhat contradictory. Recommended that the EIS revisit and more accurately reflect the perceived noise by sensitive receptors, especially at night.	Update the EIS to more accurately reflect the perceived noise by sensitive receptors, particularly at night.	The revised draft EIS has been updated to address potential operational rail impacts from noise and vibration at the sensitive receptors along the Project alignment in accordance with Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019)(Section 4, 6, 10 of Appendix W: Noise and Vibration Assessment - Railway Operations) The criteria in the Interim Guideline includes both Single Event Maximum (SEM) and time average noise level (L_{Aeq} (24 hour) for residential receivers. If the criteria are exceeded, reasonable and practicable mitigation options should be implemented. In the same way that short-term increases in rail noise don't influence the noise levels over a 15 and 9 hour period, they won't influence noise levels when averaged over a 24 hour period. It should also be noted that the Interim Guideline does not require consideration of background noise levels or the time of day the noise is impacting residential receivers. There is no requirement to reflect perceived impacts on the community in the Interim Guideline. Perception of noise and reactions to noise vary from person to person and therefore it's not possible for ARTC to predict individual's reaction to noise. However, Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018) , further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment – Railway Operations Section 4 Section 6 Section 10 Section 11
145	145.0200	State Agency	Traffic and Transport		TMR notes that the Traffic and Transport Impact Assessment (TIA), Pavement Impact Assessment (PIA) and Safety Audits/Assessments are not comprehensive or conclusive as ARTC has had to make assumptions about haulage routes given a construction contractor has yet to be appointed. In recognition of this limitation ARTC has proposed to update the Traffic Impact Assessment when the project contractors are appointed, and final traffic generation is clearer in accordance with TMRs GTIA. For example, Section 18.4.1.1 states "The TIA may be finalised when project contractors are appointed and the final traffic generation is clearer". TMR does not object to this approach but will need to be confident the ARTC is legally obligated through statutory powers/laws to update the TIA, PIA and Safety Audit/Assessment and then undertake necessary mitigation works, and fulfil its various other commitments (and additional commitments yet to be determined) in the OEMP to protect TMRs State interests. This is particularly important because TMR does not have the power to require ARTC to update the TIA, PIA and Safety Audit/Assessment through the Transport Infrastructure Act 1994.	TMR recommend that ARTC continue to engage with TMR early in the preparation and review of a more detailed Traffic Impact Assessment, Road Pavement Impact Assessment and Safety Audit/Assessment and resultant mitigation measures. Early and continued engagement will ensure a Safe System approach to the delivery of the Inland Rail project that does not detriment the state-controlled road network. The requirement to prepare and review a more detailed Traffic Impact Assessment, Road Pavement Impact Assessment and Safety Audit/Assessment should be added to those requirements already listed in the Traffic, Transport and Access part of the draft Outline Environmental Management Plan. This requirement should clearly articulate that ARTC will consult and work with TMR, and ultimately obtain TMRs endorsement for the TIA and pavement impact assessment (PIA).	The pavement impact assessment and road safety assessment has been updated in accordance with GTIA requirements and is documented in Section 5.6 of Appendix AA: Traffic Impact Assessment. ARTC will continue to engage with TMR and other road controlling authorities through the subsequent stages of the Project to agree on appropriate mitigation measures through the construction of the Project.	Appendix AA: Traffic Impact Assessment Section 5.6
145	145.0201	State Agency	Traffic and Transport		The TIA report indicates that extensive consultation has been undertaken with the following stakeholders and associated consultation method: <ul style="list-style-type: none"> ▶ NSW Roads and Maritime Services (RMS): RFI, Telephone and emails ▶ QLD Department of Transport and Main Roads (TMR): Request for information (RFI), meetings and emails ▶ Goondiwindi Regional Council: RFI ▶ Inverell Shire Council: RFI ▶ Toowoomba Regional Council: RFI and meetings ▶ Clarence Valley Council: RFI ▶ Moree Plains Shire Council: RFI ▶ Gwydir Shire Council: RFI The TIA indicates that the consultation was used as an opportunity to confirm the acceptability of: <ul style="list-style-type: none"> ▶ The proposed TIA process ▶ List of potentially impacted assets included in the assessment ▶ Guidelines, manuals and policies adhered to for the assessment ▶ Assumptions (such as traffic growth rates, assumed base volumes, etc.) ▶ Proposed mitigation measures. It is unclear from the TIA whether all affected road authorities were consulted in preparing the TIA. Although the TIA states the type of information requested from each stakeholder, it is still unclear whether the information requested was actually provided, what information was ultimately provided, if there were any gaps in the provided information, how were these gaps resolved and whether any assumptions had to be made about the provided information.	It is suggested that clarification be provided regarding the outcomes of the consultation whether if there were any agreement/requirements stipulated by TMR, RMS and councils regarding the study area, impact assessment process, key issues to be addressed, performance metrics, mitigation and assumptions for the TIA. It is also suggested that the TIA be updated to elaborate further on the type of information received and any gaps in information which had to be resolved.	Appendix E: Consultation Report details the consultation that has been undertaken with all relevant stakeholders potentially impacted by the Project. Updates have been made to Appendix E: Consultation Report to detail specific consultations undertaken, information requested and provided, gaps and any assumptions made on the information provided for use in the traffic assessment. Appendix AA: Traffic Impact Assessment Section, 1.3.1 details the outcomes of the stakeholder consultation conducted with all stakeholders.	Appendix AA: Traffic Impact Assessment Section 1.3.1 Appendix E: Consultation report

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0202	State Agency	Traffic and Transport	Baseline/background sampling	<p>The TIA report also indicates that existing traffic volume data was obtained for all impacted local government roads (LGRs) and state-controlled roads. The base year of the TIA assessment is 2021. Traffic data was sourced from a combination of sources including from TMRs detailed segment analysis reports, Queensland Globe, Traffic Viewer, Logan Motorway and Toowoomba Second Range Crossing data, adopting volumes from nearby adjacent roads, traffic surveys and assumed volumes. The TIA report indicates that LGR traffic volumes were estimated based on 7-day 24-hour traffic surveys, volumes obtained from relevant road authorities and assumptions where traffic information is not available. The TIA indicates that 7-day 24-hour traffic surveys were conducted on the following LGRs:</p> <ul style="list-style-type: none"> Goondiwindi Regional Council Gwydir Shire Council Moree Plains Shire Council <p>The TIA indicates that traffic data roads were obtained from the relevant authority:</p> <ul style="list-style-type: none"> Department of Transport and Main Roads Goondiwindi Regional Council Toowoomba Regional Council <p>Traffic volumes were assumed for the roads in the following local government area:</p> <ul style="list-style-type: none"> Clarence Valley Council Goondiwindi Regional Council Gwydir Shire Council Inverell Shire Council Moree Plains Shire Council Toowoomba Regional Council <p>The TIA indicates that data obtained from RMS Traffic Viewer were used to estimate traffic volumes on the following roads:</p> <ul style="list-style-type: none"> Roads and Maritime Services Clarence Valley Council Inverell Shire Council <p>The TIA indicates the following assumptions were made in terms of LOS thresholds for the impacted roads:</p> <ul style="list-style-type: none"> Queensland Globe data was obtained for the following roads: Transport and Main Roads: <p>The TIA indicates that data obtained from volumes were adopted from adjacent surveyed link road or adjacent TMR detailed segment and weekly report data.</p> <p>TMRs review indicate that information was obtained for all LGR and SCR links expected to be impacted and to be used as primary construction transport routes. It was found in the TIA that traffic volume base year dates of all sources of information were for different years. It is unclear from the TIA report how the data from different years were used to estimate base year 2021 traffic and clarification is required.</p>	<p>The EIS (TIA) should use the most up to a date and latest traffic data. Clarification is required explaining what traffic data has been obtained from Queensland Globe, how they have been used in the TIA and why the TMR detailed segment report data was not used instead. Clarification is required on how the assessment has taken into account the lower traffic demand on the road network in 2020 and 2021 given the COVID-19 situation. Clarification is required on how traffic volume data for the Logan Motorway were used in the TIA. Clarification is required on how traffic data from the Toowoomba Second Range Crossing were used in the TIA. It is unclear from the TIA the basis of the road hierarchy and LOS thresholds defined per road. LOS thresholds were not defined for highway class links. Clarification is required in the TIA report. It is unclear from the report how traffic volume data obtained from 7-day 24-hour counts relates to AADT as it is not a 365-day count. Clarification is also required describing how the data obtained from the 7-day 24-hour counts were converted into AADT and representative peak hour volumes. It was found in the TIA that the traffic volume data obtained were from different years. Clarification is required relating to how the data from different years were used to estimate base year 2021 traffic and clarification is required. Clarification is required on the rationale and how the assumed traffic volumes were estimated for the impacted roads. Amend the EIS (TIA) to respond to these issues accordingly.</p>	<p>Appendix AA: Traffic Impact Assessment, Section 2.4.2 provides an overview of the traffic data collected and used for the purpose of determining intersection volumes (used for the turn warrants assessment) at SCR intersections and outlines the existing volumes for all intersections. As part of the traffic data collection task, traffic volumes have been collected along the Project construction routes over the recent years including:</p> <ul style="list-style-type: none"> SCR census-based traffic volumes Local Government databases Traffic signal data (from DTMR STREAMS software) Link-based traffic volumes tube counts conducted in: <ul style="list-style-type: none"> September 2019 September/October 2020 March 2021 March 2022. Intersection turning counts conducted in: <ul style="list-style-type: none"> March 2021, around Brookstead March 2022, for the wider network May 2022, for diversion locations. <p>In instances where traffic data was not available from road controlling authorities or traffic surveys conducted, conservative turning volume assumptions have been adopted using the available road link volumes. This methodology has been outlined in a technical memo to TMR which is provided in Appendix BP of Appendix AA: Traffic Impact Assessment. For the intersections where base traffic turning volumes were not available, the intersection assessment will be first undertaken by comparing two 'Base Traffic Scenarios' and then the 'worst case' scenario is considered for delay impacts.</p> <p>During detailed design, once the construction routes are finalised with a construction contractor, it is recommended that traffic counts be obtained for updating the traffic analysis where recent data (i.e. previous 5 years) is not available to accurately determine impacts of final Project alignment, construction program, methodology, routes and vehicle volumes.</p> <p>Details about the Construction Works stage of the Project are provided in Appendix AA: Traffic Impact Assessment Section 4.1.1. This provides a simple overview of traffic generation relevant for the TIA, with further detailed information about the Construction Works stage provided in revised draft EIS Chapter 5: Project Description, Section 5.46.</p> <p>The peak period has been determined by overlaying the construction program spatially and temporally across the Project study area to determine individual link and movement peak volumes. Appendix AA: Traffic Impact Assessment, Section 4.1.1 and 4.2 details the traffic generation and distribution of construction trips.</p> <p>Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA. LOS provides a qualitative index while delay provides the quantitative indication of impacts. Section 5.5 defines the performance thresholds for assessment of traffic impact developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017) as:</p> <ul style="list-style-type: none"> An impact occurs if construction and operational traffic generated by the development exceeds five percent of the existing AADT on the road Section LOS C can be considered the minimum standard on rural roads. However, LOS D may be accepted in case of event traffic. LOS E should be considered the limit of acceptable for urban area operation and remedial works would be needed if LOS F would otherwise result. <p>Classifications for LOS that have been used in this capacity assessment have been provided in Section 5.5 of Appendix AA: Traffic Impact Assessment. Refer to Section 5.5 for the HCS highway facility and multilane facility, respectively.</p> <p>The traffic data used within the revised draft EIS is the most up to date data obtained from road controlling authorities at the time of the assessment, and assumptions made were provided to these authorities at multiple stages during the draft EIS for review.</p>	<p>Chapter 5: Project Description Section 5.46 Appendix AA: Traffic Impact Assessment Section 2.4.2 Section 4.1.1 Section 4.2 Section 5.5 Appendix BP</p>
145	145.0203	State Agency	Traffic and Transport		<p>The TIA report indicates that the following SCR (TMR) intersections will be impacted by the Projects construction turn movements:</p> <ul style="list-style-type: none"> Transport and Main Roads: 88 intersections Goondiwindi Regional Council: 15 intersections Toowoomba Regional Council: 18 Intersections Roads and Maritime Services: 16 intersections Clarence Valley Council: 10 intersections Moree Plains Shire Council: 1 Intersection Gwydir Shire Council: 2 intersections <p>The TIA report indicates that the following SCR (TMR) intersections are potentially impacted by the Projects operation:</p> <ul style="list-style-type: none"> Goondiwindi Regional Council: 23 intersections Toowoomba Regional Council: 32 intersections Gwydir Shire Council: 2 intersections Moree Plains Shire Council: 1 Intersection <p>It is unclear from the TIA report what type of Intersection information was obtained from each controlling authority such as turn movement counts and their durations, vehicle classifications, etc., and whether traffic surveys were conducted. Clarification is required elaborating on the type of information obtained for each impacted intersection. TMRs review was unable to confirm the veracity of the Intersection volume data used for the Intersection analysis in the TIA.</p>	<p>It is unclear from the TIA report what type of traffic data for intersections have been used for the assessment of Intersection performance. TMRs review was unable to confirm the veracity of the Intersection volume data used for the Intersection analysis in the TIA. Clarification is required in the TIA. Amend the TIA accordingly.</p>	<p>The traffic data used within the revised draft EIS is the most up to date data obtained from road controlling authorities at the time of the assessment, and assumptions made were provided to these authorities at multiple stages during the development of the revised draft EIS.</p> <p>Details about the Construction Works stage of the Project are provided in Appendix AA: Traffic Impact Assessment Section 4.1. This provides a simple overview of traffic generation relevant for the TIA, with further detailed information about the Construction Works stage provided in revised draft EIS Chapter 5: Project Description, Section 5.6.</p> <p>As previously described in Section 2.3.1 of Appendix AA: Traffic Impact Assessment, the road network utilised by construction traffic has been split into 526 road links with unique traffic volumes, consolidated into 267 road sections accounting for most road sections being used in both directions. These road links indicate sections of roads with consistent traffic volumes, taking into account where background traffic volumes change and where construction traffic turn on and off the road.</p> <p>Appendix AA: Traffic Impact Assessment Table 2.5 provides details relating to the source of the background traffic data. Background traffic volumes for links were obtained from a variety of sources, including road controlling authorities, intersection counts and link counts. Table 2.5 provides a summary of the data sources used for the purpose of the TIA (Section 2.4.1 Appendix AA: Traffic Impact Assessment).</p>	<p>Chapter 5: Project Description Section 5.6 Appendix AA: Traffic Impact Assessment Section 2.3.1 Section 2.4.1 Section 4.1 Table 2.5</p>
145	145.0204	State Agency	Traffic and Transport		<p>The construction of the Project is anticipated to be undertaken over a period of six years approximately, starting in 2021 with completion of construction in 2026. The Project is expected to be fully operational by 2026.</p>	<p>Clarification is required whether the construction program includes activities such as internal road construction/external access upgrade work and site preparation works. Further details are required in the TIA.</p>	<p>Details about the Construction Works stage of the Project are provided in Appendix AA: Traffic Impact Assessment Section 4.1. This provides a simple overview of traffic generation relevant for the TIA, with further detailed information about the Construction Works stage provided in Chapter 5: Project Description, Section 5.6.</p>	<p>Chapter 5: Project Description Section 5.6 Appendix AA Traffic Impact Assessment Section 4.1</p>

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145	145.0205	State Agency	Traffic and Transport		<p>The TIA report presents the traffic generated based on the quantities of construction materials, workforce and equipment, with buffer factors applied to each transportation task to allow for additional journeys that may be required as a consequence of factors such as material quality compliance issues, breakages etc. The total number of trips by construction activity are summarised in the TIA Table 5.14 (see submission). The TIA assumed the following construction schedule and construction activities in order to establish development generated traffic (see Table in submission). Clarification is required whether the construction program includes activities such as internal road construction/external access upgrade work and site preparation works. The TIA mentions that although some materials might be delivered prior to construction start and end dates. However, it was assumed that delivery and construction start and end dates would occur during the same time. Clarification is required to confirm the proposed schedule for delivery of materials and start of construction. Clarification is required regarding the arrival patterns of work force and material/equipment and how overlapping peaks were taken into consideration. The TIA report identified the impacted roads and intersections for the transport of construction material and equipment refer to Section 2.1 of this table. The TIA assumed the locations of the following:</p> <ul style="list-style-type: none"> ▶ Borrow sites for borrow material at the following locations and proposed use: <ul style="list-style-type: none"> ▶ Cemetery Road Structural Fill ▶ Moorobie Lane Structural ▶ Woodcocks Road Structural ▶ Taits Red Ridge Structural ▶ Texas-Yelarbon Road Structural ▶ Bybera Road Structural ▶ Fosters Road Structural ▶ Mosquito Road Structural ▶ Millmerran-Inglewood Road Structural ▶ Kooroongarra Andersons Road, Canning Creek Structural ▶ Kooroongarra Road Structural ▶ Heckendorfs Road Structural Fill ▶ Ballast material will be sourced from the following quarries: <ul style="list-style-type: none"> ▶ Inglewood Quarry ▶ Captains Mountain Quarry (Millmerran) ▶ Quarry Road Bland Quarries Pittsworth ▶ Wellcamp Quarries ▶ Holcim Australia Toowoomba Quarry ▶ Precast concrete and batch plant facilities <p>The TIA mentions that a concrete batch plant and precast facility has been proposed. For the purpose of the TIA, it is assumed that all precast material for the bridges will be supplied from the proposed Precast Concrete Facility and Concrete Batch Plant North. Two locations have been identified for the temporary siting of a precast concrete facility and concrete batch plant for the Project. Whilst two locations have been nominated, only one plant is expected to be necessary to supplement the supply of concrete from established plants. The proposed locations are immediately north and south of the Condamine River floodplain outside the 1% AEP flood line. The locations are: All precast elements for culvert construction are assumed to be supplied from Toowoomba. The remaining in-situ concrete required along the alignment will be sourced from existing concrete suppliers (Holcim, Roda and Humes) within supply distance to the Project. Construction water will be sourced from the following supplies for each activity:</p> <ul style="list-style-type: none"> ▶ 2536 ml for earthworks ▶ 15.0 ml for the temporary batching and precast concrete plant (water requirement for concrete supplied by existing concrete/precast concrete suppliers not included) ▶ 2.16 ml for trackwork The TIA mentions that water will be supplied to various points along the alignment by water trucks. Origin locations where water will be transported from, have been provided in the TIA, Appendix N. Rail sleepers The TIA has assumed that ARTC will supply all of the concrete sleepers. The concrete sleepers are assumed to originate from NSW (town of Grafton) and be distributed via the road network to various laydown areas. Two overarching transport routes have identified as below: <ul style="list-style-type: none"> ▶ North of Millmerran utilises the Pacific, Warrego and Gore Highways, including the new Toowoomba Second Range Crossing ▶ South of Millmerran utilises Summerland Way and the Bruxner Highway <p>Proposed construction transport routes for sleepers are illustrated in Appendix M of the TIA. Rail tracks The TIA assumes that rail tracks will be transported by rail to laydown areas. Clarification is required how rail will be transported from origin to destination for the new gauge construction as this is not mentioned in the TIA report. Workforce The TIA mentions that accommodation demands in the northern extent of the project are expected to be sufficiently met by established accommodation in Toowoomba, Pittsworth and Southbrook. South of Pittsworth, the TIA indicates that worker camps would be optimally located in the proximity of the townships of Yelarbon, Inglewood and Millmerran to accommodate the construction workforce. Each facility will be required to hold 300 staff during the peak between weeks 50 and 70. The average occupancy of the non-resident workforce accommodation outside of the peak period will be approximately 150 people per facility. It was assumed that workers will travel to the sites in light vehicles. The TIA mentions that operational traffic would be minimal and irregular to assess. Traffic would consist of will consist of low vehicle movements to/from depots and transportation of maintenance material within the rail corridor. Clarification with sufficient justification is required regarding the expected operational vehicles likely to be generated during a typical peak hour. TMRs review was unable to determine whether sufficient information is available to determine both construction and operational development generated traffic.</p>	<p>Clarification is required to confirm the proposed schedule for delivery of materials and start of construction. Clarification is required how rail will be transported from origin to destination for the new gauge construction as this is not mentioned in the TIA report. The TIA mentions that operational traffic would be minimal and irregular to assess. Clarification with sufficient justification is required regarding expected operational activities and the expected operational vehicles likely to be generated during a typical peak hour. The TIA does not appear to provide much information regarding the worker transport routes, workforce traffic volumes by route and the mode of travel to be used from population centres of accommodation to work site. Any borrow pits intended to be utilised for TMR works are to be TMR/local authority approved. Amend the EIS, TIA and Chapter 22 Outline Environmental Management Plan accordingly.</p>	<p>Details about the Construction Works stage of the Project are provided in Appendix AA: Traffic Impact Assessment Section 4.1.1. This provides a simple overview of traffic generation relevant for the TIA, with further detailed information about the Construction Works stage provided in Chapter 5: Project Description, Section 5.6.</p> <p>The peak period has been determined by overlaying the construction program spatially and temporally across the Project study area to determine individual link and movement peak volumes. Appendix AA: Traffic Impact Assessment Section 4.1 details the traffic generation and distribution of construction trips.</p> <p>Appendix AA: Traffic Impact Assessment is only for the construction activities, as defined in Section 1.2.</p>	<p>Chapter 5: Project Description Section 5.6 Appendix AA Traffic Impact Assessment Section 1.2 Section 4.1 Section 4.1.1</p>

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145	145.0206	State Agency	Traffic and Transport		<p>The TIA determined the peak periods and peak traffic loads based on the following parameters and assumptions:</p> <ul style="list-style-type: none"> Working hours for general construction activities: <ul style="list-style-type: none"> Monday to Friday ~6.30 am to 6 pm Saturday 6.30 am to 1 pm No work planned on Sundays or public holiday Track possessions will proceed on a 7-day/24-hr calendar basis, subject to agreement with QR. Workforce on site is estimated to peak at 900 full time equivalents between weeks 50 and 70. <p>The average number of full-time equivalent workforce on site across the full construction period is over 400 people. From TMRs review, it was found that the peak periods were estimated with consideration of the following:</p> <ul style="list-style-type: none"> An equal average monthly distribution of total construction traffic loads across the construction duration in number of months were assumed in the TIA. This was done to determine an average monthly traffic volume applicable to each construction activity throughout the delivery timeframe. An equal average distribution of monthly construction traffic loads per day was determined by dividing the average monthly traffic load by 22 working days in a month. This was done to determine an average daily traffic volume applicable to each construction activity throughout the delivery timeframe. An equal average distribution of daily construction traffic loads per day was determined for each construction activity by dividing the average daily traffic load by 12 working hours in a day. This was done to determine an average hourly traffic volume applicable to each construction activity throughout the delivery timeframe. The peak period (peak daily and hourly construction traffic) were then estimated by overlapping all construction activities and the distribution of average daily traffic loads across the construction schedule. This was done to determine the peak period (duration in the construction schedule) where construction traffic will be the highest. <p>The TIA indicates that peak delivery movements for different construction activities will likely not coincide with each other as the start date of construction activities are typically reliant on the end date of others. It is unclear from TMRs review how micro fluctuations in peaking would be accounted for by using an average distribution and sequential construction schedule. Clarification and sufficient justification are required as the construction schedules is anticipated to overlap i.e. concurrent construction activities. Furthermore, it was assumed that delivery and construction start, and end dates would occur during the same time. The design peak hour during construction was not indicated in the TIA. It is unclear from TMRs review how the peak of 900 workers during weeks 50 and 70 were taken into account as the TIA assumed equal average distribution of work force generated traffic across the entire construction schedule. Clarification is required regarding the peak number of workers in the design peak hour, arrival patterns of the work force and material/equipment and how overlapping peaks were taken into consideration. The work force usually arrives on site before equipment/material arrives on site and leaves the site after material supply. Clarification is required as TMRs review was unable to determine whether workforce traffic peaks were adequately determined. TMRs review was unable to confirm if both construction and operational development generated traffic in the peak periods has been adequately addressed in the TIA. It is also unclear from the TIA what is the adopted design peak period (month, day and hour) based on the construction traffic profile in the TIA. It is suggested that a graph be included in the TIA illustrating the overlapping activities, schedules and generated traffic in order to identify the peak periods.</p>	<p>Clarification is required regarding the peak number of workers in the design peak hour, arrival patterns of the work force and material/equipment and how overlapping peaks were taken into consideration. It is also unclear from the TIA what is the adopted design peak period (month, day and hour) based on the construction traffic profile in the TIA. It is suggested that a graph be included in the TIA illustrating the overlapping activities, schedules and generated traffic in order to identify the peak periods.</p>	<p>The peak period has been determined by overlaying the construction program spatially and temporally across the Project study area to determine individual link and movement peak volumes. Appendix AA: Traffic Impact Assessment Section 4 details the traffic generation and distribution of construction trips.</p> <p>Appendix AA: Traffic Impact Assessment Section 4.3.1 provides the peak construction trips per year across all links. Section 4.3.2 provides the peak construction trips per day across all links.</p> <p>For each assessment area required by the GTIA the appropriate peak impact period (month, day and hour) has been used. For example road link capacity is daily volumes, whereas vehicle minutes delay assessment uses peak hour.</p>	<p>Appendix AA Traffic Impact Assessment Section 4.3.1 Section 4.3.2</p>
145	145.0207	State Agency	Traffic and Transport		<p>The TIA report identified the use of applicable K-values from the Road Planning and Design Manual (RPDM), Chapter 5: Traffic Parameters and Human Factors pertaining to different road types. These K-values were applied to base AADT volumes to estimate base 30th highest hourly design volumes to account for seasonal fluctuation. This was done for all road links forming part of the construction routes. The K-values considered for the roads consist of:</p> <ul style="list-style-type: none"> Rural arterials = K-value of 0.15 Outer urban arterials = K-value of 0.12 In the absence of existing traffic count data for a particular road link, the use of generic Kvalues from the RPDM is considered acceptable. However, traffic count data were collected for the study road links and intersections, which can be used to determine the appropriate Kvalues for each link and intersection. 	<p>It is suggested to use the existing observed traffic volume count data to estimate the appropriate K-values for each impacted link and intersection. Applying generic global K-values is not representative of local traffic conditions. Clarification is required. Update TIA with revised Kvalues.</p>	<p>Appendix AA: Traffic Impact Assessment, Section 2.4 discusses the analysis within the TIA being updated to adopt the peak hour factor from the nearest DTMR AADT site, using the DTMR hourly summary data available through the Queensland Government Open Data Portal. This approach was adopted as many intersection and link counts had very low traffic volumes. It was therefore determined using the intersection counts to determine peak hour factors would be inappropriate due to significant fluctuation between days of the week. An analysis was undertaken of the intersection and link counts with higher traffic volumes across the study area and the peak hour factor was compared with that of the closest DTMR AADT site. A summary of this analysis is provided in Appendix AA: Traffic Impact Assessment Table 2.7. The analysis found that the closest DTMR AADT site could reasonably be used to represent the daily variation in the area.</p> <p>Appendix AA: Traffic Impact Assessment Table 2.8 provides details on which DTMR AADT site was used for each road link and its corresponding AADT growth rate, HV growth rate and peak hour factor for the AM and PM peaks in both directions.</p> <p>No global k-values are used in the revised TIA.</p>	<p>Appendix AA: Traffic Impact Assessment Section 2.4 Table 2.7 Table 2.8</p>
145	145.0208	State Agency	Traffic and Transport		<p>The TIA report does not describe the trip distribution methodology and how directional splits by construction activity were estimated in the peak periods (daily and peak hour). Further clarification is required in the TIA report.</p>	<p>Clarification is required on trip distribution and how directional splits of peak traffic (daily and peak hour) were estimated for each construction activity i.e. workers and general construction traffic movements. Amend the EIS (/TIA) accordingly.</p>	<p>The peak period has been determined by overlaying the construction program spatially and temporally across the Project study area to determine individual link and movement peak volumes. Appendix AA: Traffic Impact Assessment, Section 4.1 and 4.2 details the traffic generation and distribution of construction trips.</p>	<p>Appendix AA: Traffic Impact Assessment Section 4.1 Section 4.2</p>
145	145.0209	State Agency	Traffic and Transport		<p>The TIA indicates that the development would generate the following peak daily construction traffic volumes distributed along the LGR and SCR road network for each assessment year:</p> <ul style="list-style-type: none"> 9592 vehicles/day in year 2021 13,922 vehicles/day in year 2022 8882 vehicles/day in year 2023 7275 vehicles/day in year 2024 4782 vehicles/day in year 2025 3031 vehicles/day in year 2026. <p>The estimated daily and peak traffic volumes indicate that the highest traffic demand occurs in year 2022, which aligns with the peak workforce (900 workers) expected in weeks 50 and 70, according to the construction start date of 2/1/2021.</p>	<p>nil.</p>	<p>Appendix AA: Traffic Impact Assessment, Section 2.4.1 discusses the background traffic data sources. Traffic data base year varies from 2006 – 2022 due to different sources. It is noted that DTMR data was primarily sourced from 2019 count summaries in order to avoid under-estimation of traffic volumes due to COVID-19.</p> <p>It is noted that COVID-19 has had many impacts to the road network and traffic volumes. It remains unclear how travel will return in a post-COVID-19 world, however, sensitivity testing may be undertaken in the Detailed Design stage to account for differences in local growth due to COVID-19, as deemed necessary by stakeholders.</p>	<p>Appendix AA: Traffic Impact Assessment Section 2.4.1</p>

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145	145.0210	State Agency	Traffic and Transport	Operational traffic	The TIA mentions that operational phase traffic would only account for irregular maintenance and emergency service vehicles. The operational traffic is envisaged to make use of the existing road system and account for low volume traffic with no impact on existing operations. It is suggested that clarification with justification be provided pertaining to the generation of low operational traffic volumes.	Clarification with justification be provided pertaining to the generation of low operational traffic volumes and the consequent insignificant impact. Amend the EIS (/TIA) to accordingly.	Appendix AA: Traffic Impact Assessment Section 4.1 details the traffic generation assumptions used to inform the trip volumes for both construction and operational assessments completed within Appendix AA: Traffic Impact Assessment. With regard to construction traffic generation, Appendix AA: Traffic Impact Assessment Section 4.2 details the trip distribution methodology applied to the Project. Trips are distributed on the road network as per the construction routes to laydown areas along the length of the Project alignment. These laydown areas are situated next to the rail corridor to facilitate direct access to/from the laydown to the rail corridor. The laydown areas will act as a centralised point for all material storage. The exact schedule of delivery is unknown at this stage of the Project; therefore, a uniform delivery schedule has been utilised as an indicative schedule. Further information on the construction delivery schedule will be required to be developed by the appointed construction contractor once delivery materials and routes are determined. Consideration of micro fluctuations will need to be taken into account at that stage. Nonetheless, the mitigation measures provided as a part of this assessment acknowledge these possibilities and the requirement for a traffic management plan to ensure that the impact on the road network is managed. Primary construction routes determined for the Project are used for the purposes of the TIA, the categories of routes include workforce, water supply, mass haul, precast concrete bridges and culverts, in-site concrete, quarry materials, concrete sleepers, rail, plant, tools and materials, non-resident workforce accommodation, and rail to road diversion routes. Proposed construction transport routes are identified in Section 1.2, while Appendix U to Appendix AE of Appendix AA: Traffic Impact Assessment illustrate the various primary construction routes. Appendix AF of Appendix AA: Traffic Impact Assessment shows the routes identified for diversion routes resulting from the temporary closure of existing rail lines. Where possible, routes generally follow roads suitable for HV use, considering distance and staying on arterial roads and avoiding populated areas such as town centres. The NHVR journey planner was used to identify roads suitable for HVs. All routes passing through or originating in Toowoomba are using the Toowoomba Bypass, if practical. Haulage routes that were used for the construction of the Toowoomba Second Range Crossing (now Toowoomba Bypass), as well as those suggested in TRC feedback, have been considered. The revised draft EIS Chapter 5: Project Description Section 5.6 provides further detailed information about the construction strategy proposed for the Project. With regard to operational road traffic generation, in relation to rail operational traffic and maintenance processes, rail operational traffic volumes are likely to be negligible, with no envisaged impact to operational conditions of the surrounding road networks. Appendix AA: Traffic Impact Assessment Section 4.1.2 provides further detail.	Chapter 5: Project Description Section 5.6 Appendix AA: Traffic Impact Assessment Section 1.2 Section 4.1 Section 4.1.2 Section 4.2 Appendix U-AE Appendix AF
145	145.0211	State Agency	Traffic and Transport	Construction traffic	The TIA mentions that the NHVR journey planner tool has been used to determine routes most likely to be used for the transport of construction material from origin to destination. The transport route will impact on the following: <ul style="list-style-type: none"> 70 SCR (TMR) links 25 SCR (RMS) links and 139 LGR links 88 intersections affecting TMR 16 intersections affecting RMS 46 intersections affecting local government 10 level crossings to intersect with the SCR (TMR) 66 level crossings to intersect with local government roads. <p>The use of the NHVR tool to determine construction transport routes is an acceptable industry standard for feasibility purposes. However, such routes might have other constraints relating to bridge heights and widths, load limits, conditions of operations, etc., which was not examined in the TIA.</p> <p>The TIA stipulates the use of the following design heavy vehicles in the TIA:</p> <ul style="list-style-type: none"> Austrroads Vehicle Class 5-4 Axle Rigid Truck (27.5 tonne) Austrroads Vehicle Class 7 4 Axle Semitrailer (31.5 tonnes) Austrroads Vehicle Class 9 - 6 Axle Semitrailer (42.5 tonne) Austrroads Vehicle Class 10 - 7 Axle B-Double (55.5 tonne) Assumed OSOM for Precast concrete bridges Unloaded Class 3 Rigid Truck with 4 Axle Dolly and 4 Axle Jinker (70t payload). <p>The use of Performance Based Standards (PBS) trucks was not proposed by ARTC. TMR require that ARTC consider the PBS3B as the design vehicle for queue length and turnpaths which may impact on the selected transport routes and stacking distance requirements at level crossings.</p>	Update transport routes to take into account other constraints such as those relating to bridge height and widths, load limits, vehicle swept path impacts, as well as other aspects of height and vehicle manoeuvrability impacts on conditions of operations etc. Amend the EIS (/TIA) to accordingly. Update the TIA to take into consideration the PBS3B as the design vehicle for queue length and turn-paths.	The nominated construction transport routes have taken into consideration the restrictions on vehicle sizes through the NHVR Journey Planner Tool. However, if required and necessary for the Project, all oversized vehicles required to transport special equipment will require permits, to be obtained from the relevant road managing authorities. The transport requirements adopted within the revised draft EIS may change during the Detailed Design stage. Appendix AA: Traffic Impact Assessment, Section 5.7.3 provides swept path analyses have been undertaken for all proposed routes used by OSOM vehicles, as well as consideration of bridge and culvert constraints and outlines mitigation measures. OSOM routes were ground truthed through site visits, with details of observations provided in Appendix AA: Traffic Impact Assessment sub-Appendix BU. At this stage, oversize vehicles are only assumed to be required for the transportation of 29 m Super-T precast concrete girders, with the assumed vehicle a Nicolas 22 Row OSOM (details provided within Appendix AA: Traffic Impact Assessment sub-Appendix BB, and swept path in sub-Appendix BC). As stated, this requirement may change during Detailed Design stage. Similarly, at this stage, the performance based standard level 3B (PBS3B) vehicles are not nominated as the design vehicle for construction traffic, while the majority of the construction routes are not suitable for this vehicle type. The construction contractor may stipulate the use of these vehicles but will be required to prepare route assessments accordingly. Should the design vehicle change from those assessed in the Appendix AA: Traffic Impact Assessment, swept path analysis will be undertaken by the construction contractor once the appropriate design vehicle has been chosen to determine any temporary changes to the existing layout which may be required to accommodate construction traffic movements, such as localised widening or removal of signage and lighting, beyond those assessed and presented within Appendix AA: Traffic Impact Assessment, Section 5.7.3.	Appendix AA Traffic Impact Assessment Section 5.7.3 Appendix BB Appendix BC Appendix BU
145	145.0212	State Agency	Traffic and Transport	Road safety	It should be noted that any changes to access configurations, nearby intersections, bus stop locations, cycling facilities, footpaths and so on, once designed, should be assessed via a Road Safety Audit to identify if they introduce any additional safety issues.	Any changes to access configurations, nearby intersections, bus stop locations, cycling facilities, footpaths and so on proposed by the project will require a Road Safety Audit as per the requirements of the GTIA. See TMR's other comments about updating the TIA, PIA and RSA.	As noted within the revised draft EIS Appendix AA: Traffic Impact Assessment Section 5.7, a safety assessment of the detailed design and proposed construction traffic routes will be required, in accordance with the GTIA. The safety assessment will determine the locations where road safety audits are required. Road safety audits will be undertaken by an accredited road safety auditor, in accordance with the Austrroads Guide to Road Safety Part 6A: Implementing Road Safety Audits (Austrroads, 2019c). Road safety audits will be undertaken at certain stages of the design as set out in the DTMR Minimum Technical Requirements document for Inland Rail.	Appendix AA: Traffic Impact Assessment Section 5.7
145	145.0213	State Agency	Traffic and Transport	Road safety	The safety assessment in the TIA indicates that the risk rating increases due to the impact of the Project on the following state-controlled roads and LGRs: <ul style="list-style-type: none"> Cunningham Highway (TMR) Core Highway (TMR) Logan Motorway (TMR) Millmerran-Inglewood Road (TMR) Toowoomba-Cecil Plains Road (TMR) Warrego Highway (TMR) Bruxner Highway (RMS) Gwydir Highway (RMS) New England Highway (RMS) Newell Highway (RMS) Pacific Motorway (RMS) Summerland Way (RMS) Bruxner Way (ISC) <p>It is unclear from the TIA report what the specific safety/risk factors and concerns were on each of the SCR links which would cause an increase in risk rating to existing crashes. Clarification is required with elaboration and reasoning for the increase in risk rating from Medium to High on impacted state-controlled roads and LGRs.</p> <p>Where the TIA indicates no change to existing safety conditions clarification is required to support this conclusion. The TIA indicates that mitigation measures would be required to reduce the risk rating and recommends the following measures:</p> <ul style="list-style-type: none"> Fatigue management measures should be introduced and enforced for all workers Any required works to be identified in ongoing Road Use Management Plans prepared to support the project Heavy vehicle movements are associated with construction activities and therefore the use of school bus routes should be avoided if possible, or carefully managed to avoid conflicts. Consideration should be given to limiting construction traffic on school bus routes during pick-up and set-down times on school days, alternatively appropriate school bus infrastructure could be installed. Temporary traffic management to be implemented, for example road signs stipulating reduced speed limits. Findings from TMRs review indicates that the road link safety assessment was adequately performed to determine the increase in the likelihood and consequence of safety as result of development generated traffic. <p>However, clarification is required relating to specific safety/risk factors and concerns on each of the SCR links which would experience an increase in risk rating to existing crashes. In addition, elaboration should be provided in the TIA describing how these mitigation measures would demonstrate that they are measurable and auditable to ensure compliance. Consideration should be given to avoid schools along the transport routes.</p>	Clarification is required with elaboration and reasoning for the increase in risk rating from on impacted state-controlled roads and LGRs. The TIA indicates that there would be no change to existing safety conditions along other roads, clarification is required in the TIA to support these conclusions. Elaboration should be provided in the TIA describing how these mitigation measures would demonstrate that they are measurable and auditable to ensure compliance. Consideration should be given to avoid schools along the transport routes or how the impact of heavy vehicle movements will be managed on school routes. Amend the EIS (/TIA) to respond to these issues accordingly.	The road safety assessment presented within the Appendix AA: Traffic Impact Assessment Section 5.2 has been undertaken as per the framework laid out in GTIA Part C Section 9. This framework relies on the principle that a road's safety is not significantly worsened as a result of the Project and that any pre-existing or Project -introduced unacceptable safety risk is addressed. The GTIA acknowledges that safety is not readily quantifiable and may require scoring based on expert opinion on the changes to likelihood and/or consequence of a risk being realised. This road safety impact assessment has the following aims in accordance with the Project's TIA – Road Safety Methodology Technical Memo which was agreed with DTMR in November 2022 (Appendix BS of Appendix AA: Traffic Impact Assessment). A safety risk assessment based on existing crash history has been undertaken along the Project construction traffic routes and road-rail interface locations for the following scenarios: <ul style="list-style-type: none"> 'Without' Project 'With' Project 'With' Project and with mitigation measures (required only if the score in the Project situation is higher than in the without Project situation, or if the without Project score is in the 'high' category). <p>Appendix AA: Traffic Impact Assessment, Section 5.12 provides whole of Project mitigation measures suggested for the Detailed Design and Construction Works stages, which include items such as construction traffic management plans, road use management plans, and non-infrastructure based mitigation measures. Appendix AA: Traffic Impact Assessment, Section 6.2 provides a summary of the intersections, road links and road-rail interfaces requiring mitigation as per the GTIA Part C Section 9 framework. The detailed road safety assessments are contained in sub-Appendix AN, AO AP and AQ of Appendix AA: Traffic Impact Assessment for intersections, road links, road-rail interfaces (construction), and road-rail interfaces (operation) respectively.</p>	Appendix AA: Traffic Impact Assessment Section 5.2 Section 5.2.2 Section 5.12 Appendix AN Appendix AO Appendix AP Appendix AQ Appendix BS

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145	145.0214	State Agency	Traffic and Transport	Road safety	A road safety assessment for the impacted intersections was not addressed in the TIA. The TIA is to be updated with an intersection safety assessment as required by TMR's GTIA.	Undertake intersection safety analysis as per requirement of GTIA. See related comment about requirement to update the TIA.	<p>The road safety assessment presented within the Appendix AA: Traffic Impact Assessment Section 5.2 has been undertaken as per the framework laid out in GTIA Part C Section 9. This framework relies on the principle that a road's safety is not significantly worsened as a result of the Project and that any pre-existing or Project-introduced unacceptable safety risk is addressed.</p> <p>The GTIA acknowledges that safety is not readily quantifiable and may require scoring based on expert opinion on the changes to likelihood and/or consequence of a risk being realised. This road safety impact assessment has the following aims in accordance with the Project's TIA – Road Safety Methodology Technical Memo which was agreed with DTMR in November 2022 (Appendix BS of Appendix AA: Traffic Impact Assessment).</p> <p>A safety risk assessment based on existing crash history has been undertaken along the Project construction traffic routes and road-rail interface locations for the following scenarios:</p> <ul style="list-style-type: none"> ▶ 'Without' Project ▶ 'With' Project ▶ 'With' Project and with mitigation measures (required only if the score in the Project situation is higher than in the without Project situation, or if the without Project score is in the 'high' category). <p>Appendix AA: Traffic Impact Assessment, Section 5.12 provides whole of Project mitigation measures suggested for the Detailed Design and Construction Works stages, which include items such as construction traffic management plans, road use management plans, and non-infrastructure based mitigation measures.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 provides a summary of the intersections, road links and road-rail interfaces requiring mitigation as per the GTIA Part C Section 9 framework. The detailed road safety assessments are contained in sub-Appendix AN, AO AP and AQ of Appendix AA: Traffic Impact Assessment for intersections, road links, road-rail interfaces (construction), and road-rail interfaces (operation) respectively.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2</p> <p>Section 5.2.2</p> <p>Section 5.12</p> <p>Section 6.2</p> <p>Appendix AN</p> <p>Appendix AO</p> <p>Appendix AP</p> <p>Appendix AQ</p> <p>Appendix BS</p>
145	145.0215	State Agency	Traffic and Transport	Construction traffic	The TIA report indicates that several laydown areas have been proposed throughout the length of the alignment. These laydown areas are situated next to the corridor to facilitate direct access to/from the laydown to the alignment. The TIA further indicates that a total of 74 laydown areas are proposed. The TIA provides a typical construction traffic access configuration which will be applied to laydown areas as well as a general discussion regarding the access and egress movements of construction traffic. The exact locations of the proposed laydown areas could not be reviewed as maps and figures were not provided illustrating the localities, although general locations are prescriptive in the TIA. It is suggested that although acceleration and deceleration lanes are proposed for each laydown area. A turn warrant assessment is to be conducted for access intersections to each laydown area in order to determine the requirement for the provision of dedicated right turn lanes.	It is suggested that a turn warrant assessment be conducted for each laydown area access intersections in order to determine the requirement for the provision of dedicated right turn lanes and/or any other turn lane requirements. The turn warrant assessment should be done for each year of construction as well as 10 years post opening phase for the operational stage. Amend the EIS (TIA) accordingly.	<p>Seventy-eight laydown areas have been allocated within the construction footprint of the alignment. Establishing temporary laydown areas will involve clearing, grubbing, topsoil stripping, installing environmental controls, laying hardstand material and constructing parking areas, and access tracks. All temporary laydown areas are intended to be used for the Project during construction. Full list of laydowns are summarised in Table 3.9 of Section 3.5 of Appendix AA: Traffic Impact Assessment.</p> <p>A turn warrants assessment has been conducted at all access locations to laydown areas in order to identify the required turning treatments to accommodate Project traffic flows. The method to determine turn treatment requirements is generally consistent with the warrants outlined in Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossing Management (2019a). The timing of potential access tracks upgrade works will be determined during the Detailed Design stage, including any permit changes. For the purpose of the access impact assessment, it was assumed that all laydown area access locations will be developed as new access intersections and as such have no 'existing' scenarios have been assessed, only a 'with Project' scenario was investigated. It was also noted that these laydown areas will only be used during construction of the Project and therefore only the peak impact month was assessed (Section 5.3 of Appendix AA: Traffic Impact Assessment).</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 3.5</p> <p>Section 5.3</p> <p>Table 3.9</p>
145	145.0216	State Agency	Traffic and Transport	Construction traffic	The TIA evaluated the impact of the Project on the road link capacity using the following process: A 5% AADT volume comparison was undertaken by calculating the traffic generated by the Project as a percentage of the background traffic. This was performed for all construction transport road links mentioned in TMR's comments re Section 2.1 of the GTIA and each year of construction.	In the absence of existing traffic count data for a particular road link, the use of generic K-values from the RPDM is considered acceptable. However, traffic count data were collected for the study road links, which can be used to determine the appropriate K-values for each link which would take into account local conditions. Update TIA with revised K-values. The use of the Austroads Part 2 "Guide to Traffic Engineering Practice: Roadway Capacity" guide is considered inadequate as the guide is superseded by the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis, 2017. It is proposed that the analysis be updated to reflect the use of the latest Austroads guide.	<p>Appendix AA: Traffic Impact Assessment Section 2.4.1 discusses the analysis within the TIA being updated to adopt the peak hour factor from the nearest DTMR AADT site, using the DTMR hourly summary data available through the Queensland Government Open Data Portal. This approach was adopted as many intersection and link counts had very low traffic volumes. It was therefore determined using the intersection counts to determine peak hour factors would be inappropriate due to significant fluctuation between days of the week. An analysis was undertaken of the intersection and link counts with higher traffic volumes across the study area and the peak hour factor was compared with that of the closest DTMR AADT site. A summary of this analysis is provided in Appendix AA: Traffic Impact Assessment, Table 2.7. The analysis found that the closest DTMR AADT site could reasonably be used to represent the daily variation in the area.</p> <p>Appendix AA: Traffic Impact Assessment Table 2.8 provides details on which DTMR AADT site was used for each road link and its corresponding AADT growth rate, HV growth rate and peak hour factor for the AM and PM peaks in both directions.</p> <p>No global k-values are used in the revised draft Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 2.4.1</p> <p>Table 2.7</p> <p>Table 2.8</p>
145	145.0217	State Agency	Traffic and Transport	Construction traffic	Road sections in the transport corridor where the Project related traffic exceeds 5% were identified and highlighted in the report. The TIA indicates 12 SCR roads which exceed the 5% threshold.	It is acknowledged that the Levels of Service (LOS) during construction should not exceed LOS C along the affected TMR road links and intersections, according to the information supplied (worst case scenario). This complies with the generally acceptable limits prescribed in the GTIA. TMR's predominant responsibility, however, lies in the preservation of existing LOS, given the critical freight and transport routes involved. In this regard, future negotiations with ARTC regarding triggered intersection upgrades, sequential planning of works and other related activities are required with a view to maintain, as a minimum existing LOS. Amend the EIS (TIA) accordingly.	<p>Appendix AA: Traffic Impact Assessment has been updated to include impact assessment performance criteria and methods in Section 5, in accordance with GTIA requirements. Where the non-infrastructure-based mitigations detailed above are assessed to be insufficient to reduce the overall impact area aggregate vehicle minutes delay down to under 5 per cent, a review of intersection operational performance (LOS, DoS, average delay, and 95th percentile queue) has undertaken to determine which intersections are require infrastructure-based mitigation measures.</p> <p>The delay-based analysis criteria adopted for the purposes of the TIA are adopted from Austroads Guide to Traffic Management Part 3: Transport Study and Analysis Methods and are provided in Table 2.22. The Table indicates the LOS per intersection control type associated with a respective delay per vehicle measured in seconds. This has been incorporated into the TIA to assist in determining appropriate mitigation measures.</p> <p>Appendix AA: Traffic Impact Assessment Section 5.5 defines the performance thresholds for assessment of traffic impact developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017) as:</p> <ul style="list-style-type: none"> ▶ An impact occurs if construction and operational traffic generated by the development exceeds five percent of the existing AADT on the road Section ▶ LOS C can be considered the minimum standard on rural roads. However, LOS D may be accepted in case of event traffic. ▶ LOS E should be considered the limit of acceptable for urban area operation and remedial works would be needed if LOS F would otherwise result. <p>Classifications for LOS that have been used in this capacity assessment have been provided in Section 5.5. Refer to Section 5.5 for the HCS highway facility and multilane facility, respectively.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5</p> <p>Section 5.5</p> <p>Table 2.22</p>
145	145.0218	State Agency	Traffic and Transport	Construction traffic	The TIA indicates that state-controlled roads (RMS) and Clarence Valley LGRs would not exceed the 5% threshold. These road sections were further analysed to determine the incremental change (deterioration) in the Level of Service (LOS) as a result of the development generated traffic (construction traffic). The TIA evaluated the impacts on the LOS by applying the methodology as stipulated in Austroads Part 2 "Guide to Traffic Engineering Practice: Roadway Capacity" to analyse the two-way-two-lane highway and multi-lane highway segments for each year of construction where the 5% threshold is exceeded. The use of the guide is considered inadequate as the guide is superseded by the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis, 2017. It is proposed that the analysis be updated to reflect the use of the latest Austroads guide. The link analysis also indicates that K-values consisting of 0.15 and 0.12 as mentioned in TMR's comments relating to GTIA Section 3.3 were used. In the absence of existing traffic count data for a particular road link, the use of generic K-values from the RPDM is considered acceptable. However, traffic count data were collected for the study road links, which can be used to determine the appropriate K-values for each link. Clarification should be provided whether local K-values were used where available.	nil.	<p>Appendix AA: Traffic Impact Assessment, Section 2.4.1 discusses the analysis within the TIA being updated to adopt the peak hour factor from the nearest DTMR AADT site, using the DTMR hourly summary data available through the Queensland Government Open Data Portal. This approach was adopted as many intersection and link counts had very low traffic volumes. It was therefore determined using the intersection counts to determine peak hour factors would be inappropriate due to significant fluctuation between days of the week. An analysis was undertaken of the intersection and link counts with higher traffic volumes across the study area and the peak hour factor was compared with that of the closest DTMR AADT site. A summary of this analysis is provided in Appendix AA: Traffic Impact Assessment Table 2.7. The analysis found that the closest DTMR AADT site could reasonably be used to represent the daily variation in the area.</p> <p>Appendix AA: Traffic Impact Assessment Table 2.8 provides details on which DTMR AADT site was used for each road link and its corresponding AADT growth rate, HV growth rate and peak hour factor for the AM and PM peaks in both directions.</p> <p>No global k-values are used in the revised draft Appendix AA: Traffic Impact Assessment.</p> <p>The link capacity methodology has been updated as a part of the revised TIA. The methodology is discussed within Appendix AA: Traffic Impact Assessment Section 5.5, and includes:</p> <ul style="list-style-type: none"> ▶ Determining the existing geometric conditions of the road links triggering the 5 per cent threshold within the Project TIA study area to determine the capacity assessment type. ▶ Sealed roads with line markings will undertake a LOS analysis through the Highway Capacity Software (HCS) to determine LOS without and with Project traffic. <p>Roads that are unsealed or have no line markings are not able to undergo a HCS analysis so have been assessed through a volume/capacity check as shown in Section 5.5 with the capacity based on the DTMR Cost-Benefit Analysis Manual.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 2.4.1</p> <p>Section 5.5</p> <p>Table 2.7</p> <p>Table 2.8</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0219	State Agency	Traffic and Transport		<p>The TIA report indicates that the following intersections will be impacted:</p> <ul style="list-style-type: none"> Transport and Main Roads: 88 Intersections Goondiwindi Regional Council: 15 Intersections Toowoomba Regional Council: 18 Intersections Roads and Maritime Services: 16 Intersections Clarence Valley Council: 10 Intersections Moree Plains Shire Council: 1 Intersections Gwydir Shire Council: 2 Intersections <p>Details regarding each intersection is provided in TMRs comments regarding Section 1.3 of the GTIA. The TIA did not perform a 5% peak hour volume comparison analysis as well as an intersection delay assessment for the intersections identified to be impacted. A turn-lane warrant assessment was conducted to determine upgrade requirements. The turn-lane warrant assessment methodology in the TIA was found to comply with the approach as contained in the Austroads Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections. However, it is unclear whether the analysis was done for all impacted intersections. Clarification is required to confirm whether all the affected state controlled roads (TMR and RMS) and local government intersections were evaluated by means of a turn-lane warrant assessment. The TIA provides turn warrant analysis findings of the intersections where results indicate upgrades are required. Upgrades are recommended at 13 intersections based as below:</p> <ul style="list-style-type: none"> Cunningham Highway/Bybera Road - CHR(s) turning treatment is required Cunningham Highway/Elizabeth Street - AUL turning treatment and a CHR turning treatment Cunningham Highway/Millmerran-Inglewood Road - AUL turning treatment and a CHR turning treatment East Sawmill Road/Unnamed Road - AUL turning treatment Toowoomba Regional Council Gore Highway/Geltz Road - CHR turning treatment and an AUL turning treatment Gore Highway/Linthorpe Road - CHR turning treatment and an AUL turning treatment Gore Highway/Millmerran-Inglewood Road - AUL turning treatment Gore Highway/Scrubby Road - AUL or CHL turning treatment are required Gore Highway/Tummalville Road - CHR(s) turning treatment and an AUL(s) turning treatment Gore Highway/Athol School Road - AUL turning treatment Millmerran-Inglewood Road/Campbell Street - AUL(s) turning treatment and a CHR(s) Toowoomba Cecil Plains Road/Wellcamp Westbrook Road - CHR turning treatment Warrego Highway/Leesons Road - CHR turning treatment <p>Most of the intersections listed under the ownership of Toowoomba Regional Council and Goondiwindi Regional Council in the TIA are actually managed by TMR. Clarification is required in the TIA. Clarification is required relating to the traffic volume information used to do the turn lane warrant assessment as it was found from the TIA that turn volumes were assumed for the analysis. It is suggested that the TIA be updated with a 5% peak hour volume comparison analysis and intersection delay assessment as per the GTIA. This review is unable to determine whether the intersection analysis has been adequately assessed.</p>	<p>It is suggested that the TIA be updated to indicate the intersections where the development traffic exceeds 5% of the base traffic for any movement in the design peak period(s) in the year of opening of each construction stage and operations stage. The TIA to incorporate intersection delay assessments at those intersections to determine if the average delay to base traffic movements is greater than 5% in aggregate. Appropriate mitigation measures should be formulated to address the increase, if any, to the aggregate delay. Clarification is required to confirm whether all the affected SCR (TMR and RMS) and local government intersections were evaluated by means of a turn-lane warrant assessment. Clarification is required relating to the traffic volume information used to do the turn lane warrant assessment as it was found from the TIA that turn volumes were assumed. Amend the EIS (TIA) accordingly.</p>	<p>Appendix AA: Traffic Impact Assessment, Section 2.4.1 provides the methodology used to develop background traffic volumes. In instances where traffic data was not available from road controlling authorities or traffic surveys conducted, conservative turning volume assumptions have been adopted using the available road link volumes, as outlined in the technical memo provided in Appendix BP. Therefore, for the intersections where base traffic turning volumes were not available, the intersection assessment will be first undertaken by comparing two "Base Traffic Scenarios" and then the 'worst case' scenario is considered for delay impacts.</p> <p>Appendix AA: Traffic Impact Assessment Section 5.1.2 identifies the Project intersections that likely to experience a 5 per cent increase in turning volumes through the intersection.</p> <p>In accordance with GTIA requirements, each intersection has undergone SIDRA analysis to assess the peak period operational performance for the without Project and with Project scenarios. Table 5.28 lists the intersection with more than 5 per cent aggregated vehicle minutes delay. Table 5.29 lists the intersections with less than 5 per cent aggregated vehicle minutes delay. Detailed output tables and SIDRA output summaries are included in Appendix AV of Appendix AA: Traffic Impact Assessment. Intersections that require mitigation measures to be applied are documented in Section 5.4 Appendix AA: Traffic Impact Assessment.</p> <p>Turn warrant assessment has been undertaken on all affected state-controlled roads and local government turn movements. The results of the assessment are presented in Section 5.4.3, Table 5.23, and Table 5.24 Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA Traffic Impact Assessment</p> <p>Section 2.4.1</p> <p>Section 5.1.2</p> <p>Section 5.4.3</p> <p>Table 5.23</p> <p>Table 5.24</p> <p>Table 5.28</p> <p>Table 5.29</p> <p>Appendix AV</p> <p>Appendix BP</p>
145	145.0220	State Agency	Traffic and Transport		<p>Performance Based Standard (PBS) Vehicles The TIA does not specifically address heavy vehicle road corridor use according to the GTIA requirements. It is unclear whether the proposed development will generate Performance Based Standard (PBS) vehicles (Class BNHVR), if so, a heavy vehicle assessment needs to be undertaken in accordance with Transport and Main Roads Performance Based Standards Queensland Network Classification Guideline "Level 2B, Level 3B, Level 4B Roads (November 2014). This should be determined and updated accordingly in the TIA. The TIA mentions that Oversize Over mass vehicles would be required to transport items such as precast bridges, however details regarding the volumes, routes to be used, impacts of such vehicles in terms of swept paths, heights and loading were not assessed. These items are to be identified and addressed in the TIA.</p>	<p>Clarify if the Project will generate PBS vehicles. If it does, to update the TIA with mitigation measures determined through the assessment process using Transport and Main Roads Performance Based Standards Queensland Network Classification Guideline "Level 2B, Level 3B, Level 4B Roads (November 2014). It is also suggested to indicate which haulage routes are gazetted approved multi-combination vehicle (MCV) and higher mass limit (HML) vehicle routes along with locations which have restrictions. Mitigation measures should be provided in the TIA report where routes have restrictions and are not gazetted heavy vehicle routes. The assessment to include how the movement of Oversize Over mass (OSOM) vehicles will be addressed in the TIA.</p>	<p>Appendix AA: Traffic Impact Assessment has been updated to address GTIA requirements. In addition, through the greenfield sections of the Project the design caters for future provision of oversized vehicles such as the PBS2B (42m) vehicle. All brownfield corridors have a minimum of 36.5 m short stacking for formed public roads (not including stock route road reserves).</p> <p>Appendix AA: Traffic Impact Assessment, Section 4.3.1, Table 4.16 specifies total oversize overmass trips per year and Section 4.1.1 identifies what vehicle types are required for route types.</p> <p>Mitigation measures for oversize overmass movements have been nominated where required by GTIA, including pinch point assessment at intersections.</p>	<p>Appendix AA Traffic Impact Assessment</p> <p>Section 4.1.1</p> <p>Section 4.3.1</p> <p>Table 4.16</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0221	State Agency	Traffic and Transport	Construction traffic	<p>Active Transport Impacts The TIA indicates that the following cycle routes within the Principal Cycling Network will be impacted by construction traffic routes:</p> <p>Transport and Main Roads:</p> <ul style="list-style-type: none"> ▶ Warrego Highway, between Tor Street and Kingsthorpe Haden Road ▶ Toowoomba Bypass, between Mort Street and Toowoomba Cecil Plains Road ▶ Toowoomba-Cecil Plains Road, between Warrego Highway and Hanrahan Road ▶ Gore Highway, between Harrow Street and Ferguson Road ▶ Warrego Highway, between Wulkuraka Connection Road and Mt Crosby Road ▶ Toowoomba Regional Council: ▶ Charlton Connection Road, between Warrego Highway and Toowoomba Cecil Plains Road ▶ McDougall Street, between Toowoomba-Cecil Plains Road and Hursley Road ▶ Drayton-Wellcamp Road, between Double Road and Euston Road ▶ Railway Street, between Toowoomba Road and Murray Street ▶ Short Street, between Railway Street and Yandilla Street, ▶ Yandilla Street between Short Street and Cypress Street Roads and Maritime Services ▶ Oliver Street, between Clarence Street and Mary Street ▶ Mary Street, between Oliver Street and Fry Street ▶ Fry Street, between Mary Street and Alice Street ▶ Summerland Way, between Eccles Street and Bruxner Highway ▶ Bruxner Way, between Bulwer Street and New England Highway ▶ New England Highway, between Bruxner Highway and Rouse Street <p>The TIA note that a number of the proposed construction routes currently traverse through areas of moderate to high pedestrian activity through the city centres of Toowoomba, Pittsworth, Millmerran, Inglewood, Yelarbon and Grafton. The TIA does not specifically address the impact of construction traffic on pedestrian paths and cycle routes. Clarification is required in the TIA on how the impact of construction and operational traffic on pedestrian paths and cycle routes will be managed to safeguard the passage of pedestrians and cyclist. Bus Public Transport The TIA identified that there would be minimal impacts to existing bus public transport services as a result of construction of the Project. No existing bus services travel across the road rail interfaces, therefore there is minimal operational impacts to the services.</p> <p>School Buses</p> <p>The following school bus services are likely to be impacted by the proposed rail alignment:</p> <ul style="list-style-type: none"> ▶ P1883 AM & PM Athol to Bunkers Hill State School ▶ P473 Yuraraba to Inglewood State School ▶ P510 Southbrook North to Southbrook Central State School ▶ P522 Mt Emlyn area to Millmerran State School ▶ P772 AM & PM Tummaville to Millmerran State School ▶ P938 Bringalily to Millmerran State School ▶ P957 AM & PM Ivanhoe to Millmerran State School ▶ S118 AM & PM Pittsworth to Brookstead Area ▶ S178 Kingsthorpe Secondary to Harristown State High School ▶ S577 Kingsthorpe/Wellcamp to Harristown State High School ▶ S740 AM & PM Millmerran Years 11 and 12 to Pittsworth State High School <p>Prior to the construction phase of the Project, a suitable detour route for all of the affected services will be identified. Both prior to and during the construction phase of the Project, bus operators and affected schools will be consulted as part of the Project and made aware of the various construction activities. The contractors will be made aware of the presence of school bus routes and their operational hours as part of the project induction process.</p>	<p>Clarification is required in the TIA on how the impact of construction traffic on pedestrian paths and cycle routes will be managed to safeguard the passage of pedestrians and cyclist. Amend the EIS (/TIA) to respond to these issues accordingly.</p>	<p>ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards.</p> <p>A review of existing cycling infrastructure impacted by the Project alignment and construction routes are presented in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 2.16.1.</p> <p>Relevant mitigation requirements for the roads, intersections, and road-rail interfaces sharing a path with vulnerable road users are listed in Appendix AA: Traffic Impact Assessment, Section 5.2.2 and Section 5.10.7 which summarise pedestrian and cycle network mitigation measures on construction routes.</p> <p>Pedestrian and cyclist provisions at road-rail interfaces will be confirmed and agreed with road controlling authorities and local councils on a case-by-case basis requirements during detailed design once the alignment has been confirmed. At this stage, some road rail interfaces are likely to include integration of active transport facilities, including Crime Prevention Through Environmental Design considerations and access control.</p> <p>ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains in a Third Party Agreement with relevant local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design. Once agreed, changes to active transport networks will be communicated to active transport users through regular Project channels.</p> <p>Cyclist and pedestrian road safety has been considered with cyclist mitigation requirements as per the GTIA guidelines summarised in Appendix AA: Traffic Impact Assessment, Section 5.2.2.</p> <p>Section 5.10.3 of the Appendix AA: Traffic Impact Assessment discusses impacts to public transport routes and the proposed mitigations. There are five existing public transport services that have been identified with routes that are proposed to be used, in part, by construction traffic for the Project. Based on the above low increase in construction traffic comparatively to background traffic, it is considered unlikely that increased journey times would be experienced on these public transport services as a consequence of construction traffic for the Project. During the Detailed Design and Construction Works stages of the Project, TransLink and other public transport operators will be consulted to identify public transport service constraints on the local road network. Other service operators would be consulted, as required. The presence of bus routes will be considered in the preparation of the CEMP, as discussed in Section 5.12.3 Appendix AA: Traffic Impact Assessment.</p> <p>Section 5.10.4 of the revised draft EIS Appendix AA: Traffic Impact Assessment discusses the impacts on school bus services. Most significantly, it is no longer proposed to use the Yelarbon rest area as a laydown area for Project construction activities, therefore mitigating the impacts associated with student bus transfers at this location. ARTC also commits to maintaining existing bus stops during the Project construction. Where these require alteration, this will be agreed with the relevant service provider. The school bus routes identified in Table 5.114 and the bus stops and pedestrian access to these stops must be maintained during construction of the development. Accordingly, if any temporary bus stop and pedestrian access arrangements or alternative bus routes are required when construction routes are finalised, the contractor must reach agreement on suitable arrangements with the DTMR TransLink Division (bus_stops@translink.com.au or on 3851 8700) and/or bus operator (whichever is relevant) prior to any construction or works commencing.</p> <p>ARTC will continue to engage in consultation with community stakeholders and relevant government agencies through the Detailed Design and Construction Works stages to ensure that all safety concerns and issues are addressed.</p>	<p>Appendix AA: Traffic impact assessment</p> <p>Section 2.16.1</p> <p>Section 5.2.2</p> <p>Section 5.10.3</p> <p>Section 5.10.4</p> <p>Section 5.10.7</p> <p>Section 5.12.3</p> <p>Table 5.114</p>
145	145.0222	State Agency	Traffic and Transport		<p>Certification of the Traffic Impact Assessment Report by a Registered Professional Engineer Queensland using the pro-forma as per GTIA not provided.</p>	<p>Certification of the Traffic Impact Assessment Report by a RPEQ using pro-forma in the GTIA is required. Amend the EIS (/TIA) accordingly.</p>	<p>Appendix AA: Traffic Impact Assessment Section 6.3 provides Registered Professional Engineer of Queensland (RPEQ) certification of the Project TIA as per the requirement of the GTIA.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 6.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0223	State Agency	Traffic and Transport		<p>The TIA undertook a 5% SAR4 pavement loading comparison analysis on 71 SCR links (67 TMR and 4 RMS) expected to be impacted to identify road segments where development pavement loading exceeds the background pavement loading by 5% or greater. From TMRs review, it was found that the PIA area was adequately defined, highlighting road sections which exceed the 5% threshold and require further analysis. The PIA indicates the following 34 road sections which exceed the 5% threshold:</p> <p>Impacted State-controlled roads (TMR):</p> <ul style="list-style-type: none"> ▶ Toowoomba Bypass 319 - Between Gore Highway and Toowoomba-Cecil Plains Road ▶ Toowoomba Bypass 319 - Between Toowoomba-Cecil Plains Road and New England Highway ▶ Toowoomba Bypass 319 - Between New England Highway and Warrego Highway ▶ Cunningham Highway 17D - Between NSW/QLD Border and Leichhardt Highway ▶ Cunningham Highway 17D - Between Leichhardt Highway and Wyaga Road ▶ Cunningham Highway 17D - Between Wyaga Road and Yelarbon-Keetah Road ▶ Cunningham Highway 17D - Between Yelarbon-Keetah Road and Texas Yelarbon Road ▶ Cunningham Highway 17D - Between Texas-Yelarbon Road and Inglewood Texas Road ▶ Cunningham Highway 17C - Between Inglewood Texas Road and Millmerran- Inglewood Road ▶ Cunningham Highway 17C - Between Millmerran-Inglewood Road and Inglewood Quarry Access Road ▶ Cunningham Highway 17C - Between Inglewood Quarry Access Road and Coolmunda Dam Access ▶ Gore Highway 28A - Between Millmerran-Inglewood Road and Millmerran-Leyburn Road ▶ Gore Highway 28A - Between Millmerran-Leyburn Road and Pampas-Horrane Road ▶ Gore Highway 28A - Between Pampas-Horrane Road and Brookstead-Norwin Road ▶ Gore Highway 28A - Between Brookstead-Norwin Road and Tummalville Road ▶ Gore Highway 28A - Between Tummalville Road and Vines Street ▶ Gore Highway 28A - Between Vines Street and Toowoomba Bypass ▶ Gore Highway 28A - Between Toowoomba Bypass and Westbrook Road ▶ Gore Highway 28A - Between Westbrook Road and Warrego Highway ▶ Inglewood Texas Road 231 - Between Cunningham Highway and Greenup Limevale Road ▶ Inglewood Texas Road 231 - Between Greenup Limevale Road and Texas Yelarbon Road ▶ Warrego Highway 18A - Between Tallegalla Two Tree Hill Road and Haigslea Amberley Road ▶ Warrego Highway 18A - Between Haigslea Amberley Road and Brisbane Valley Highway ▶ Warrego Highway 18A - Between Brisbane Valley Road and Mount Crosby Road ▶ Warrego Highway 18A - Between Mount Crosby Road and Cunningham Highway ▶ Banwon Highway 31A - Between Leichhardt Highway and Town Common Road ▶ Charlton Connection Road 320 - Between Toowoomba-Cecil Plains Road and Jordan Court ▶ Charlton Connection Road 320 - Between Jordan Court and Warrego Highway ▶ Gore Highway 28A - Between Blackwell Road and Saleyards Road ▶ Gore Highway 28A - Between Saleyards Road and West Street ▶ Gore Highway 28A - Between West Street and Millmerran-Inglewood Road ▶ Pampas-Horrane Road 327 - Between Gore Highway and Bostock Road ▶ Pittsworth-Felton Road 332 - Between Golf Course Road and Short Street ▶ Yelarbon-Keetah Road 241 - Between Cunningham Highway and Old Warwick Road ▶ Logan Motorway 210A - Between Ipswich Motorway and Pacific Motorway ▶ Pacific Motorway 12A - Between Logan Highway and NSW/QLD border <p>Edwards Street Between North Star Road and I B Bore Road</p> <p>Impacted State-controlled roads (RMS):</p> <ol style="list-style-type: none"> 1. Bruxner Highway Between New England Highway and Summerland Way 2. Gwydir Highway Between Stephens Road and Delungra Road 3. Gwydir Highway Between Delungra Road and Delungra Bypass Road 4. Gwydir Highway Between Delungra Bypass Road and Copeton Dam Road 5. Gwydir Highway Between Copeton Dam Road and Bannockburn Road 6. Gwydir Highway Between Bannockburn Road and Campbell Street 7. Gwydir Highway Between Campbell Street and Tingha Road 8. Gwydir Highway Between Tingha Road and Elsmore Road 9. Gwydir Highway Between Elsmore Road and Woodstock Road 10. Gwydir Highway Between Woodstock Road and Waterloo Road 11. Gwydir Highway Between Waterloo Road and Coronation Avenue 12. Gwydir Highway Between Coronation Avenue and New England Highway 13. Gwydir Highway Between New England Highway and Shannon Vale Road 14. Gwydir Highway Between Shannon Vale Road and Bald Nob Road 15. Gwydir Highway Between Bald Nob Road and Old Grafton Road 16. Gwydir Highway Between Old Grafton Road and Coombadjha Road 17. Gwydir Highway Between Coombadjha Road and Old Glen Innes Road 18. Gwydir Highway Between Old Glen Innes Road and Rogan Bridge Road 19. Gwydir Highway Between Rogan Bridge Road and Bent Street 20. New England Highway Between Bruxner Way and Bruxner Highway 21. New England Highway Between Gwydir Highway and Gwydir Highway 22. Newell Highway Between NSW/QLD Border and Bruxner Way 23. Pacific Motorway Between QLD/NSW border and Gwydir Highway 24. Summerland Way Between Bruxner Highway and Red Lane 25. Summerland Way Between Trenayr Road and Turf Street <p>However, the 5% SAR4 pavement loading comparison analysis was not undertaken for local government roads.</p>	<p>The 5% SAR4 pavement loading comparison analysis needs to be undertaken for local government roads. Amend the TIA accordingly.</p>	<p>The local road impact assessment is based on an asset management approach including the structural capacity and consumption of the useful life of pavement. Table 5.59 in Section 5.6.4 of Appendix AA: Traffic Impact Assessment summarises local government road pavement mitigation measures. During Pre-Construction Activities and Early Works and Construction Works stages of the Project, ARTC commit to consult with the relevant stakeholders during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works as well as agreed contribution towards the consumption of pavement design life by construction related vehicles. The outcome of this mitigation is to ensure that pavement structural capacities are maintained and that deterioration as a result of construction related traffic is mitigated during and post construction.</p> <p>Appendix AA: Traffic Impact Assessment Section 6.2 states ARTC commits to consult with relevant stakeholders during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works as well as agreed contribution towards the consumption of pavement design life by construction related vehicles.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.6.4 Section 6.2 Table 5.59</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0224	State Agency	Traffic and Transport		All traffic volume data used in the PIA consist of the same data as mentioned in Section 1.2 of this table. The road links considered for the PIA are the same links as used for the traffic impact assessment. Road asset data from TMR (ARMIS, as-constructed plans, maintenance plans) was however not considered in the assessment. The PIA assumed a generic pavement composition for all SCR links in the PIA. The assumed generic pavement comprises thin bituminous surfacing (asphalt 50 mm or spray seal) on unbound granular road base. This is not considered appropriate, especially given that the FAMLIT model contains cost contribution rates for each 100 m of each SCR link. The pavement composition of each road link is typically available from TMRs ARMIS database and any associated as constructed or maintenance drawing records. This is not considered appropriate, especially given that the FAMLIT model contains cost contribution rates for each 100 m of each SCR link. The pavement composition of each road link is typically available from TMRs ARMIS database and any associated as constructed or maintenance drawing records. It is suggested that actual pavement composition data be obtained from TMR (ARMIS) and RMS to more accurately inform the pavement impact analysis, especially with respect to pavements containing structural/othick asphalt and bound layers (example cement treated bases) which require an assessment of SAR5 and SAR12 axle loads.	It is suggested that the FAMLIT model and ARMIS data be used with associated load damage exponential I factors based on pavement type for all impacted road links in the TIA. Amend TIA accordingly.	Appendix AA: Traffic Impact Assessment, Section 5.6.2 provides an overview of the vehicle configurations, 5 per cent comparison method and calculation of contributions, taking into consideration Austroads' Freight Axle Mass Limits Investigation Tool asset data and associated Project generated SAR4, SAR5 and SAR 12 load impacts. The assessment has been informed by data acquired from TMR road asset team. Appendix AA: Traffic Impact Assessment Table 5.54 indicates the Austroads vehicle types by construction activity that have been adopted for the assessment and it's corresponding SAR/HV values for load damage exponential factors SAR4, SAR5 and SAR12. The vehicle types were determined through the constructability assessment, with Austroads vehicle classes assigned to each of these (including the transport of ready-mix concrete). The SAR/HV values were sourced from the DTMR Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment for Austroads Classes 5 – 10. The SAR/HV values for the OSOM vehicle was determined based on standard axle loading for different axle groups and the anticipated loading spread across the proposed vehicle. A breakdown of the OSOM SAR/HV calculation is included in Appendix AZ of Appendix AA: Traffic Impact Assessment for 100 m increments of each impacted SCR link.	Appendix AA: Traffic Impact Assessment Section 5.6.2 Table 5.54 Appendix AZ
145	145.0225	State Agency	Traffic and Transport	Modelling	The percentage (%) growth rate for background traffic was determined using linear regression for all vehicles (light and heavy vehicle streams inclusive), between the years 2010 and 2018. This has resulted in an equivalent average 2% (compound) growth rate for all vehicles. This average growth rate has been used to extrapolate the growth in background heavy vehicles during the construction period (2021 to 2026). The application of a traffic growth rate based on all vehicles to heavy vehicles is not appropriate. From TMRs review it was found that there are significant differences in heavy vehicle growth rates as compared to the growth rates for all vehicles. Additionally, the adoption of a single average traffic growth rate for background traffic for all impacted State controlled roads is considered not appropriate. Individually calculated heavy vehicle traffic growth rates (background traffic) for each impacted road link needs to be used in order to capture local conditions along the link.	It is suggested that individually calculated heavy vehicle traffic growth rates (background traffic) for each impacted road link be used in the TIA. Amend the TIA accordingly.	Appendix AA: Traffic Impact Assessment Section 2.4.1 outlines the growth rates used for assessment and all road links growth rates are provided in Table 2.8. These factors were both determined based on the closest DTMR AADT site to the road link. Both the AADT and HV growth rates were determined in response to requests from DTMR and Coordinator-General for specific HV growth rates to be imputed and be adopted for the pavement impact assessment to capture local conditions and HV data. The growth rates for assessment have been determined based on the following order of hierarchy: 1. 10-year growth rate 2. 5-year growth rate 3. 1 year growth rate 4. 3 per cent p. a. (Pavement Impact Assessment Practice Note (DTMR, 2018b) states 'in the absence of site-specific data, an annual growth rate of 3 per cent p. a. should be adopted'). Appendix AA: Traffic Impact Assessment Section 6.2 includes a commitment to ensure the finalised TIA will be developed in consultation with TMR. ARTC will Consult with TMR, councils, and where relevant QR, in determination of final construction and heavy vehicle routes and update all documentation and reports to ensure the report aligns with final construction traffic volumes, turning movements, routes and vehicle types.	Appendix AA: Traffic Impact Assessment Section 2.4.1 Section 6.2 Table 2.8
145	145.0226	State Agency	Traffic and Transport	Construction traffic	The TIA provides an overview of all stockpile, laydown areas, routes and construction material quantities to be transported along SCR links for purpose of the following: <ul style="list-style-type: none">Cut-to fill mass haul earthworksCut-to-spoil mass haul earthworksImported capping material for rail formation worksRail sectionsRail sleepersRail ballastPrecast concrete bridge elementsIn-situ concrete bridgesPre-cast concrete culverts in-situ concrete culverts/drainage structuresConstruction water (material conditioning, compaction, concrete batch plants, concrete precast yard, dust suppression, haul road maintenance)Delivery/collection of plant, tools, other materialsStaff an in-depth review of the construction quantities was not undertaken and is outside the scope of this review. A breakdown of the construction quantities was provided for all construction activities, for all stockpile, laydown areas and routes along SCR links. The TIA stipulates the use of the following design heavy vehicles in the TIA: <ul style="list-style-type: none">Austroads Vehicle Class 5-4 Axle Rigid Truck (27.5 tonne) and 4.087 ESA/HVAustroads Vehicle Class 7 4 Axle Semitrailer (31.5 tonnes) and 5.019 ESA/HVAustroads Vehicle Class 9 - 6 Axle Semitrailer (42.5 tonne) and 4.93 ESA/HVAustroads Vehicle Class 10 - 7 Axle B-Double (55.5 tonne) and 7.72 ESA/HV Assumed OSOM for Precast concrete bridges Unloaded Class 3 Rigid Truck with 4 Axle Dolly and 4 Axle Jinker (70t payload) and 12.21 ESA/HV The SAR4/HV values in the TIA were sourced from DTMRs GTIA Practice Note: Pavement Impact Assessment. The SAR4/HV for the OSOM vehicle to transport the 29 metre Super-T precast concrete bridge elements was calculated consistent with Austroads Guide to Pavement Technology Part 2: Pavement Structural Design which is considered acceptable. Findings from TMRs review indicate that the proposed ESA/HV values for the design vehicles considered align with the GTIA Practice Note: Pavement Impact Assessment provided values for the purpose of analysing the 5% comparison. However, findings from TMRs review indicates that development generated pavement loads account for ESA/SAR values per heavy vehicle only. Load damage exponential values for pavements with multiple layers consisting of SAR5s and SAR12s was not taken into account or calculated as road asset data from the FAMLIT model was not evaluated based on pavement type according to 100 m increments. The TIA should be updated to take into consideration FAMLIT asset data and associated development generated SAR5 and SAR12 load damage exponential factors/rates to calculate marginal cost contributions. The TIA indicates that it is envisaged that the delivery and collection of plant, tools and materials to the construction areas will be cascaded across the road network and occur irregularly. It is considered that the spreading of the trips of this construction activity across the external road network would have a minimal impact and be of an irregular pattern to model. It has therefore been conservatively assumed that these activities would follow the same proposed routes as the workforce. Plant delivery is assumed to be 150 vehicles per month. Clarification is required relating to assumed routes likely to be used for plant and tool transport and expected peak hourly and annual volumes by an assumed design vehicle type as these trips would have an impact on pavement loading. It is suggested that the TIA be updated to reflect accordingly.	From TMRs review the following and discrepancies have been identified which is suggested to be updated in the TIA: The TIA report has identified that all rail sections will be delivered to site via existing rail however, the construction traffic loads schedule has identified that a significant amount of rail sections would be delivered to stockpiles/laydowns/sites by road. This inconsistency is to be clarified as it has a significant impact on construction traffic generation and assessment of their impacts. Clarification is required on the number of trips and routes used by staff/workers, which are assumed to be from the surrounding towns. Clarification is required on the offsite disposal of any spoil, and anticipated traffic generation. Clarification is required on the transport routes (origin/destination) for water supply. The TIA report has identified that railway sleepers will be delivered to stockpiles/laydowns/sites by Austroads Class 10 heavy vehicles with a 55-tonne payload capacity. The construction traffic loads schedule notes that the assumed capacity for freighting railway sleepers of 78 items. A precast concrete sleeper typically weighs 450-550 kg. The 78 sleepers would weigh a total of 40 tonnes, which indicates that the proposed vehicle would have sufficient payload capacity. The TIA report has identified that ready-mix concrete will be transported to site by trucks with 6m3 capacity, presumably agitator trucks. These trucks are typically Austroads Class 5 trucks with twin steer axles and TAPS chart identifies typical ESA/HV factors of 4.2-4.4. The TIA used an updated Class 5 truck which is considered sufficient. The TIA report has identified that construction water will be transported to stockpiles/laydowns/sites by 20 kilolitre water trucks. 20 kilolitre water trucks typically have a GCM of up to 43 tonnes and an ESA/HV factor of up to 5.5, which aligns with an equivalent Austroads Class 7 heavy vehicle as per the TAPS chart. This has been addressed in the TIA. Amend the EIS (/TIA) to respond to these issues accordingly.	Appendix AA: Traffic Impact Assessment, Section 5.6.2 provides an overview of the vehicle configurations, 5 per cent comparison method and calculation of contributions, taking into consideration Austroads' Freight Axle Mass Limits Investigation Tool asset data and associated Project generated SAR4, SAR5 and SAR 12 load impacts. The assessment has been informed by data acquired from TMR road asset team. Appendix AA: Traffic Impact Assessment Table 5.54 indicates the Austroads vehicle types by construction activity that have been adopted for the assessment and it's corresponding SAR/HV values for load damage exponential factors SAR4, SAR5 and SAR12. The vehicle types were determined through the constructability assessment, with Austroads vehicle classes assigned to each of these (including the transport of ready-mix concrete). The SAR/HV values were sourced from the DTMR Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment for Austroads Classes 5 – 10. The SAR/HV values for the OSOM vehicle was determined based on standard axle loading for different axle groups and the anticipated loading spread across the proposed vehicle. A breakdown of the OSOM SAR/HV calculation is included in Appendix AZ of Appendix AA: Traffic Impact Assessment for 100 m increments of each impacted SCR link.	Appendix AA: Traffic Impact Assessment Section 5.6.2 Table 5.54 Appendix AZ

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0227	State Agency	Traffic and Transport	Construction traffic	All construction traffic was converted to equivalent SAR4 repetitions and compared to the base traffic SAR4 during each year of construction 2021-2026, for each SCR link. The ratio of the development SAR4 to the background SAR4 has been calculated in accordance with the TMRs GTIA Practice Note: Pavement Impact Assessment, which calls for the SAR4 pavement impact ratio to be calculated, for each construction year, as the development traffic divided by the background traffic. The findings of the PIA show that several state-controlled roads are likely to surpass the 5% SAR threshold, with several road segments (mentioned in Section 5.1 of this table) exceeding this threshold by a significant margin. It is worth noting that while the analyses conservatively assume fully loaded vehicles in each direction, there are numerous inconsistencies within the application of the PIA methodology and calculations that need to be addressed in the TIA. Mitigation measures to counter pavement impacts are summarised in the TIA documents. The content has been reviewed and found to be generically adequate however, suitable mitigation measures should be identified for particular SCR links which may contain features or peculiarities that cannot be generically addressed. The mitigation of pavement impacts has only been conducted for the construction phase of the Project. The PIA 20 years after the opening of the final stage needs to be assessed in the TIA as required in the Practice Note: Pavement Impact Assessment.	The ratio of the development SAR4 to the background SAR4 has been calculated in accordance with the TMRs GTIA Practice Note: Pavement Impact Assessment, which calls for the SAR4 pavement impact ratio to be calculated, for each construction year, as the development traffic divided by the background traffic. The mitigation of pavement impacts has only been conducted for the construction phase of the Project. The PIA 20 years after the opening of the final stage needs to be assessed in the TIA as required in the Practice Note: Pavement Impact Assessment. Amend the EIS (TIA) to respond to these issues accordingly.	Appendix AA: Traffic Impact Assessment, Section 5.6.2 provides an overview of the vehicle configurations, 5 per cent comparison method and calculation of contributions, taking into consideration Austroads' Freight Axle Mass Limits Investigation Tool asset data and associated Project generated SAR4, SAR5 and SAR 12 load impacts. The assessment has been informed by data acquired from TMR road asset team. Appendix AA: Traffic Impact Assessment Table 5.54 indicates the Austroads vehicle types by construction activity that have been adopted for the assessment and it's corresponding SAR/HV values for load damage exponential factors SAR4, SAR5 and SAR12. The vehicle types were determined through the constructability assessment, with Austroads vehicle classes assigned to each of these (including the transport of ready-mix concrete). The SAR/HV values were sourced from the DTMR Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment for Austroads Classes 5 – 10. The SAR/HV values for the OSOM vehicle was determined based on standard axle loading for different axle groups and the anticipated loading spread across the proposed vehicle. A breakdown of the OSOM SAR/HV calculation is included in Appendix AZ of Appendix AA: Traffic Impact Assessment for 100 m increments of each impacted SCR link.	Appendix AA: Traffic Impact Assessment Section 5.6.2 Table 5.54 Appendix AZ
145	145.0228	State Agency	Traffic and Transport		No marginal cost calculations were undertaken or provided in Appendix X * Traffic Impact Assessment, contrary to the requirements of TMRs GTIA. This should be addressed in the TIA.	It is suggested that the marginal cost contribution calculation be conducted in the TIA in accordance with TMRs GTIA Practice Note: Pavement Impact Assessment. Note that the current guideline is limited to the extent that it can only predict for increases in development traffic within 5%-40%. A review of traffic volumes presented in the report indicates that development traffic in excess of 100% may be generated. Assessment for such a significant increase in traffic will require special consideration by the TMR during the detailed design phase for marginal cost calculations.	Appendix AA: Traffic Impact Assessment, Section 5.6.1 presents the methodology used for determining contributions for road rehabilitation and maintenance have been determined for DTMR road links where the Project generated traffic SAR exceeds 5 per cent of the base traffic SAR in either direction on the link in the year of analysis. The marginal cost contribution has been calculated in accordance with Practice Note: Pavement Impact Assessment December 2018. The 5% comparison assessment concluded that 12 DTMR roads exceed the 5 per cent threshold in at least one year of construction. Since the 5 per cent threshold has been reached, contributions for these sections of the SCR network may be required. Contribution amounts for the SCR network have been calculated and provided in a technical memo to the Coordinator-General. No estimate was undertaken for local government roads as marginal cost information is not available for these roads.	Appendix AA: Traffic Impact Assessment Section 5.6.1
145	145.0229	State Agency	Traffic and Transport		The EIS states: The TIA has been undertaken consistent with the 2017 GTIA, consistent with the ToR, which is also generally in accordance with the 2018 GTIA (and with no material implications to assessment outcomes). GTIA 2018 does introduce a new measurement for intersection delay (measured in vehicle minutes) as a means of quantifying a developments impact rather than capacity. It also has a stronger focus on safety. Future revisions of the TIA will need to adhere to the 2018 GTIA in all aspects, not just the PIA.	Update the EIS to acknowledge that the entire TIA will be in accordance with GTIA 2018, not just the PIA.	Appendix AA: Traffic Impact Assessment has been updated with the revised draft EIS and prepared in accordance with GTIA 2018.	Appendix AA: Traffic Impact Assessment
145	145.0230	State Agency	Traffic and Transport		The EIS makes reference to and uses the Austroads Guide to Traffic Engineering Practice, Part 2: Roadway Capacity * this Austroads publication has been superseded and replaced by the Austroads Guide to Road Design and Austroads Guide to Traffic Management.	Update the EIS to ensure that the latest Austroads manuals are referenced and used.	Appendix AA: Traffic Impact Assessment Section 1.1.2 details the legislation, policy and guidelines used within the assessment. The list includes Austroads Guide to Road Design and Guide to Traffic Management.	Appendix AA: Traffic Impact Assessment Section 1.1.2
145	145.0231	State Agency	Traffic and Transport		The EIS has assumed a k30 value for a number of situations, but k30 values may not be suitable for all of them. Further justification is required as to why k30 values have been applied within the report	Update the EIS and TIA to provide more information regarding the values assumed and provide necessary justifications as to why they were chosen.	Appendix AA: Traffic Impact Assessment, Section 2.4.1 discusses the analysis within the TIA being updated to adopt the peak hour factor from the nearest DTMR AADT site, using the DTMR hourly summary data available through the Queensland Government Open Data Portal. This approach was adopted as many intersection and link counts had very low traffic volumes. It was therefore determined using the intersection counts to determine peak hour factors would be inappropriate due to significant fluctuation between days of the week. An analysis was undertaken of the intersection and link counts with higher traffic volumes across the study area and the peak hour factor was compared with that of the closest DTMR AADT site. A summary of this analysis is provided in Appendix AA: Traffic Impact Assessment Table 2.7. The analysis found that the closest DTMR AADT site could reasonably be used to represent the daily variation in the area. TIA Table 2.8 provides details on which DTMR AADT site was used for each road link and its corresponding AADT growth rate, HV growth rate and peak hour factor for the AM and PM peaks in both directions. No k30 values are used in the revised draft Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 2.4.1 Table 2.7 Table 2.8
145	145.0232	State Agency	Traffic and Transport		It is not appropriate to assume 400 AADT on some rural local roads.	The TIA must use AADT values approved by the appropriate road authority.	Appendix AA: Traffic Impact Assessment, Section 2.4.1 outlines the methodology used to determine background traffic volumes. Existing traffic volumes have been determined for 2022 based on the background traffic data, traffic growth rate and seasonal variation factor (Section 2.4 of Appendix AA: Traffic Impact Assessment). The 2022 and future traffic volumes have been determined by a compound traffic growth estimation, and the volumes growth rates are provided in Table 2.8, Appendix AA: Traffic Impact Assessment. These factors were both determined based on the closest DTMR AADT site to the road link. Both the AADT and HV growth rates were determined in response to requests from DTMR and Coordinator-General for specific HV growth rates to be imputed and be adopted for the pavement impact assessment to capture local conditions and HV data.	Appendix AA: Traffic Impact Assessment Section 2.4.1 Table 2.4
145	145.0233	State Agency	Traffic and Transport		The report says that the GTIA defines LOS as a qualitative index for ranking operating conditions. Note that the 2018 GTIA uses intersection delay as a measure for impact and must also be assessed. LOS is not relevant to intersection performance.	The finalised TIA should follow the performance criteria and impact assessment measures as specified in the 2018 GTIA.	Appendix AA: Traffic Impact Assessment has been updated to include impact assessment performance criteria and methods in Section 5, in accordance with GTIA requirements.	Appendix AA: Traffic Impact Assessment Section 5
145	145.0234	State Agency	Traffic and Transport		The EIS states: An evaluation of available traffic growth rates on State-controlled roads identified an overall annual average AADT growth rate of two per cent. This linear growth rate was used to establish future background traffic volumes for all roads where data was not available. This is unclear as data is available for most roads. While few State-controlled roads identified within the haul and construction route plans contain permanent traffic count sites, traffic growth rates are available and should be established for each road. The adoption of a single average traffic growth rate for background traffic for all roads does not accurately represent regional roads. In addition the 2% linear growth is determined based on AADT however this as a basis for the assumption could be substantially undervaluing the specific background growth seasonal patterns of heavy vehicles. In addition the 2% linear growth is determined based on AADT however this as a basis for the assumption could be substantially undervaluing the specific background growth seasonal patterns of heavy vehicles.	Establish background heavy vehicle growth rates based on road link data and assumptions that are agreed by the department.	The 2019 traffic data referenced has been used to develop heavy vehicle growth rates for all state-controlled roads. The traffic volume sources have been summarised in Section 2.4.1 of Appendix AA: Traffic Impact Assessment. It is noted compound growth rate has been used throughout the TIA for SCR and LGR to provide a conservative background traffic for assessment. Appendix AA: Traffic Impact Assessment, Section 6.2 includes a commitment to ensure the finalised TIA will be developed in consultation with TMR. ARTC will Consult with TMR, councils, and where relevant QR, in determination of final construction and heavy vehicle routes and update all documentation and reports to ensure the report aligns with final construction traffic volumes, turning movements, routes and vehicle types.	Appendix AA: Traffic Impact Assessment Section 2.4.1 Section 6.2
145	145.0235	State Agency	Traffic and Transport		Table 1.4 identifies LOS criteria that is not contained within the GTIA.	Update and correct the EIS as stating that these criteria are in the 2018 GTIA is misleading.	The delay-based analysis criteria adopted for the purposes of the Appendix AA: Traffic Impact Assessment are adopted from Austroads Guide to Traffic Management Part 3: Transport Study and Analysis Methods and are provided in Table 2.22. The Table indicates the LOS per intersection control type associated with a respective delay per vehicle measured in seconds. This has been incorporated into the Appendix AA: Traffic Impact Assessment to assist in determining appropriate mitigation measures.	Appendix AA: Traffic Impact Assessment Table 2.22
145	145.0236	State Agency	Traffic and Transport		In Table 1.4 the EIS states: LOS C can be considered the minimum standard on rural roads. However, LOS D may be accepted in case of even traffic. The department may not consider this accurate or accept a worsening in LOS. A broad application of a minimum standard LOS to roads misrepresents the intention of Austroads and the department's requirements for road planning and design.	EIS should accurately reflect the requirement that any road planning and design be fit for purpose. Should the level of service be significantly impacted mitigation measures will require investigation.	Appendix AA: Traffic Impact Assessment, Section 5.5.1 defines the performance thresholds for assessment of traffic impact developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a). GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017) as: <ul style="list-style-type: none"> An impact occurs if construction and operational traffic generated by the development exceeds five percent of the existing AADT on the road section LOS C can be considered the minimum standard on rural roads. However, LOS D may be accepted in case of event traffic. LOS E should be considered the limit of acceptable for urban area operation and remedial works would be needed if LOS F would otherwise result. Classifications for LOS that have been used in this capacity assessment have been provided in Section 5.5 of Appendix AA: Traffic Impact Assessment. Refer to Section 5.5 of Appendix AA: Traffic Impact Assessment for the HCS highway facility and multilane facility, respectively.	Appendix AA: Traffic Impact Assessment Section 5.5 Section 5.5.1
145	145.0237	State Agency	Traffic and Transport		There seems to be some confusion about what is required to be assessed and what is required to be mitigated. Table 1.5 for example is titled Trigger criteria for the application of mitigation measures. This is not correct. The information in the Table is actually the criteria for if a particular road link, intersection or road infrastructure needs to be included in the assessment. Once it is determined that a particular road link, intersection or road infrastructure is to be included in the assessment, then the assessment must quantify the impact and determine whether the Project is responsible for mitigating that impact. The thresholds (or triggers) for determining whether a road link, intersection or road infrastructure are to be included in the assessment are not the same as the thresholds (or triggers) for whether the Project is responsible for mitigating their impact.	The EIS should be updated to describe the impact assessment process as per the GTIA more clearly.	Appendix AA: Traffic Impact Assessment has been updated in the revised draft EIS to detail the impact assessment process in Section 5, in accordance with GTIA requirements.	Appendix AA: Traffic Impact Assessment Section 5
145	145.0238	State Agency	Traffic and Transport	Baseline/background sampling	The report says that Table 2.3 lists the locations where pedestrians currently have access from one side of the proposed Project alignment to the other. Table 2.3 is local roads only. The Cunningham Highway in Yelarbon (a state-controlled road) is another location where there is currently pedestrian access across the railway line.	Update the EIS to ensure all locations where pedestrians currently access across the project alignment have been identified in the report.	Further assessment of the feasibility of separate pedestrian access has been undertaken as a part of the revised reference design and summarised within Appendix AA: Traffic Impact Assessment. The revised reference design proposal consists of a grade separated road-over-rail crossing (310-11-E-0), where Cunningham Highway crosses the rail corridor approximately 400 m further west of the existing level crossing that is proposed for closure (310-11-E-1). A dedicated active pedestrian level crossing has been added at the existing Cunningham Highway interface location (310-11-E-1) to enable pedestrian movement north/south of the Yelarbon township. ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains in a Third Party Agreement with local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design. Appendix AA: Traffic Impact Assessment Section 3.7.2 discusses the Yelarbon pedestrian crossing facilities assessment in detail.	Appendix AA: Traffic Impact Assessment Section 3.7.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0239	State Agency	Traffic and Transport		The Section says that the Contract Award is indicatively at the end of 2020. Given that this is not going to occur (it is now 2021), the indicative construction timetable should be updated accordingly.	Update the EIS to ensure the latest indicative construction timetable is provided in the report.	Appendix AA: Traffic Impact Assessment Section 3.3 Table 3.6 provides a breakdown of indicative construction activities and timeline. Table 3.7 provide anticipated timing of all Inland Rail Projects in Queensland.	Appendix AA: Traffic Impact Assessment Section 3.3 Table 3.6 Table 3.7
145	145.0240	State Agency	Traffic and Transport	Level crossing	TMR have not requested separation distances for two A-triple vehicles. TMRs current position is for storage of a Type 1 Road Train/PBS 3B (42m) one of which may be stored on the through road. This is different to what is written in the report.	Update the EIS to ensure the report represents TMRs current position accurately. Also see TMRs comment regarding swept path analysis for level crossings.	Appendix AA: Traffic Impact Assessment, Section 3.7 documents the reference design reviews and updates since the draft EIS submission. Appendix AA: Traffic Impact Assessment, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.	Appendix AA: Traffic Impact Assessment Section 3.7 Section 5.9
145	145.0241	State Agency	Traffic and Transport		In Table 4.10, the column headings say peak volume. It is assumed this is peak hour volume not peak half hour or peak two hours.	Update the EIS to ensure tables headings include full units of measure.	All tables within Appendix AA: Traffic Impact Assessment include full units of measure as appropriate.	Appendix AA: Traffic Impact Assessment
145	145.0242	State Agency	Traffic and Transport		In Table 4.10, why are %HV not applicable for three of the interface locations (Gore Highway, Toowoomba-Cecil Plains Road and Warrego Highway)?	Update the EIS to justify why certain roads are not adequately populated in the table, and update and amend the EIS as required.	Appendix AA: Traffic Impact Assessment, Section 2.4, Table 2.6 provides Background traffic volumes and heavy vehicle percentages.	Appendix AA: Traffic Impact Assessment Section 2.4 Table 2.6
145	145.0243	State Agency	Traffic and Transport		Note that the roads listed are not all state-controlled roads.	Update the EIS to ensure the report accurately describes any accesses from state-controlled roads.	Appendix AA: Traffic Impact Assessment, Section 2.3.1, Table 2.2 provides Surrounding road network details - road links, split into appropriate road authority groups.	Appendix AA: Traffic Impact Assessment Section 2.3.1 Table 2.2
145	145.0244	State Agency	Traffic and Transport		The EIS states: "Road rail-interface analysis: It was considered to adopt 95th percentile output results from SIDRA modelling results instead of industry standard 85th percentile outputs. This is considered conservative as it accounts for additional vehicle queue and delay which might be induced through higher traffic volumes and slower moving vehicles. Adopting 95th percentile as output from SIDRA would not have intent to and would not necessarily reflect traffic volumes during a seasonal peak. It would in the first instance be considered conservative to adopt an AADT value factored for the peak harvest season before then considering queue lengths.	Revise the EIS assessment to include probable and conservative traffic assumptions for peak harvest season/s. Alternatively, the Traffic Impact Assessment must be updated to include these details.	Section 2.4.1 of the revised draft Appendix AA: Traffic Impact Assessment discusses calculation of updated seasonal variation factors for the study area based on DTMR AADT sites which had year-long traffic data. Five DTMR AADT sites within the Project study area which fit this criterion. Areas of influence were chosen not simply by proximity but rather by the extents in which the DTMR sites provide the volume for. These sites and areas of influence are shown in Appendix AA: Traffic Impact Assessment, Figure 2.2. The seasonal variation factor was calculated by finding the factor required to multiply the ADT for each month to the peak month ADT for the site. This has been used to factor base traffic counts from a given month up to the peak month of the year. DTMR weekly data was used from the Queensland Government Open Data Portal and the middle day of the week was used to determine which month to include the week in. Appendix AA: Traffic Impact Assessment, Table 2.10 provides a summary of the seasonal variation factor determined for each site over the twelve months of the year.	Appendix AA: Traffic Impact Assessment Section 2.4.1 Table 2.10 Figure 2.2
145	145.0245	State Agency	Traffic and Transport		The report says that the intersection would be designed to the largest construction vehicle. This will need to be confirmed by the appropriate road authority. The design vehicle may need to be larger depending on the access level of the roads involved.	Amend Transport Chapter of the EIS and TIA to note this requirement.	Heavy vehicle route restrictions have been considered in the development of construction routes, in order to prioritise use of roads which are designed to a higher standard and are better suited to accommodate larger construction vehicles. This considered, often the first and last mile to material providers or laydown areas occur on local government roads with limited design for heavy or OSOM vehicles. Where use of roads deviates from defined routes allowing the design vehicle, consultation and agreement will be required with the road authority. Appendix AA: Traffic Impact Assessment, Section 2.20.2 provides a summary of heavy vehicle routes and restrictions.	Appendix AA: Traffic Impact Assessment Section 2.20.2
145	145.0246	State Agency	Traffic and Transport		Bybera Road is not a gazetted B-double route. There will need to be an approval process through the appropriate authority to access for larger vehicles than what a road is gazetted for.	Amend Transport Chapter of the EIS and TIA to note this requirement.	Appendix AA: Traffic Impact Assessment Section 1.3.1 provides a summary of the stakeholder engagement undertaken, which includes Bybera Road. In addition to discussions with road managers, engagement with directly affected and nearby landowners has been undertaken. The construction routes identified within the revised draft EIS are proposed construction routes only. Use of these for the Project, and by the construction contractor, will require further assessment at Detailed Design stage which will include vehicle approvals by Council in the case of Bybera Road. This will be specific to the design vehicle that ARTC and the construction contractor stipulate.	Appendix AA: Traffic Impact Assessment Section 1.3.1
145	145.0247	State Agency	Traffic and Transport		With relation to the Cunningham Highway/Bybera Road intersection, the design will also need to comply with any TMR requirements in addition to Austroads GRD Part 4A. The intersection should be treated as a Slagged-T which may impact on the configuration of the turning lanes.	Update the EIS and TIA to more accurately expand upon the design requirements.	The updated Appendix AA: Traffic Impact Assessment provides a summary of intersection turn warrant assessments within Section 5.4.3, with detailed results and calculations in Appendix AT of Appendix AA: Traffic Impact Assessment, with the analysis indicating an upgraded right turn treatment (CHR(S)) to accommodate construction related traffic. Detailed design of intersection upgrades is not considered within the Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 5.4.3 Appendix AT
145	145.0248	State Agency	Traffic and Transport	Construction traffic	Section 6.3.1 discusses the turn warrants for right turn movements, whereas the third column of Table 6.14 refers to peak hour left turn volume into Bybera Road (QR).	Update the EIS to clarify column headings under Section 6.3 regarding Construction intersection analysis.	Appendix AA: Traffic Impact Assessment Section 5.3.3 outlines the turn warrants assessment methodology, which is in accordance with Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossing Management (2019a). Access impact assessment (for laydown areas) is discussed in Section 5.3.3 Appendix AA: Traffic Impact Assessment and includes left and right turns. Intersection impact assessment is discussed in Section 5.4.3 and includes left and right turns (Appendix AA: Traffic Impact Assessment).	Appendix AA: Traffic Impact Assessment Section 5.3.3 Section 5.4.3
145	145.0249	State Agency	Traffic and Transport		The Cunningham Highway/Yelarbon-Kurumbul Road intersection will be reconfigured as part of the permanent works. Any assessment of the mitigation treatments proposed here must be cognisant of this.	Amend EIS and TIA to take account of the reconfiguration.	The safety assessment within the Appendix AA: Traffic Impact Assessment has considered the implications at Yelarbon-Kurumbul Road pre and post Project. These are summarised in Table 5.12 with detailed results in Appendix AA: Traffic Impact Assessment sub-Appendix AN. Section 5.4.3 outlines the turn warrant requirements at this Section without and with the Project traffic.	Appendix AA: Traffic Impact Assessment Section 5.4.3 Table 5.12 Appendix AN
145	145.0250	State Agency	Traffic and Transport		The second paragraph says undated TIA instead of updated TIA for the Cunningham Highway/East Sawmill Road intersection.	Amend the EIS to state "updated rather than "undated.	The revised draft EIS has been reviewed and updated in accordance with the additional information request from the Office of the Coordinator-General. The process of updating the draft EIS includes, but is not limited to, technical reviews as well as quality control reviews.	N/A
145	145.0251	State Agency	Traffic and Transport	Level crossing	Where side roads are being closed (primarily to remove the need for a level crossing) and the traffic is diverted to an existing intersection with a state-controlled road, the operation of the existing intersection will also need to be assessed for potential impacts due to the increase in traffic.	Update the EIS to ensure that existing intersections affected through the closure of accesses are operating within acceptable limits.	A road diversion assessment has been undertaken at the locations where the rail alignment and road-rail interface crossing type has led to a requirement for redirection of traffic to an alternative route. Within the Border to Gowrie Study area, the following seven diversions have been identified: <ul style="list-style-type: none"> ▶ Athol School Road, Athol ▶ Biddeston Southbrook Road, Southbrook ▶ Lochaber Road, Pittsworth ▶ Oakey Pittsworth Road, Pittsworth ▶ Tip Road, Pittsworth ▶ Ware Street, Brookstead ▶ Fysh/Harris Road, Pampas. In Appendix AA: Traffic Impact Assessment, Section 5.9 a detailed assessment has been undertaken at each of these diversion locations, to summarise the: <ul style="list-style-type: none"> ▶ Existing situation, including the road network and active and public transport provisions ▶ Required site distance length ▶ Traffic information and rerouting assumptions ▶ Capacity (SIDRA) and turn warrants assessment without and with Project ▶ Recommendations. The Ware Street diversion is an exception to above, as this diversion location has had a separate traffic impact assessment undertaken. As such, the previous Appendix AA: Traffic Impact Assessment work (Section 5.9.4) has been summarised within this report, with the full assessment included in Appendix BM of Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 5.9.4 Appendix BM
145	145.0252	State Agency	Traffic and Transport	Cumulative impacts	It is noted that the values in Table 7.3 represent B2G-generated traffic only. The additional traffic generated from all other Inland Rail projects will also need to be factored in as this may increase these percentages above 5% for some road sections.	The TIA should include traffic generated by all other Inland Rail projects when determining whether impact assessment thresholds are reached. Amend the EIS/TIA accordingly.	The cumulative traffic assessment has been updated in the revised draft EIS Appendix AA: Traffic Impact Assessment and is documented in Section 5.11. This now includes consideration of all other Inland Rail projects with overlapping construction routes.	Appendix AA: Traffic Impact Assessment Section 5.11
145	145.0253	State Agency	Traffic and Transport		The assumed seven-axle B-double is an atypical vehicle for quarry operations. The makeup of quarry fleet are typically tandem trucks or truck and dog combination ensurs wider and unrestricted access across the road network. These vehicles including within same classes can have substantially differing payloads. The assumed vehicle type is not made clear and it is therefore unclear what effect this has on the PIA.	Revise the assessment to include probable heavy vehicle traffic combination types for the intended activities. Undertake a detailed PIA in accordance with TMR's assessment criteria. This is in addition to TMRs other comments on the PIA.	The vehicle types adopted for this assessment, as presented in Appendix AA: Traffic Impact Assessment Table 5.53, are in line with standard Classes 5, 7, 9 and 10 vehicles as well as the assumed size of the OSOM vehicles used to transport the precast concrete bridge sections, and have been utilised in the construction trip generation task for the calculated construction load. However, the construction vehicle types adopted for the assessments during the draft EIS and revised draft EIS will need to be reconfirmed during the Detailed Design stage once a construction contractor is appointed. The pavement impact assessment has been undertaken based on the SARs calculated for these vehicle types consistent with the Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment December 2018.	Appendix AA: Traffic Impact Assessment Table 5.53
145	145.0254	State Agency	Traffic and Transport	Cumulative impacts	The PIA is not cross-referenced with other significant developments, in particular, other sections of the Inland Rail proposal, to inform cumulative impacts.	In consultation with the department undertake a detailed PIA in accordance with TMR's assessment criteria. Include the cumulative impacts of the Inland Rail programme and to maintain consistency with requirements of the ToR.	The cumulative traffic assessment has been updated in the revised draft EIS Appendix AA: Traffic Impact Assessment and is documented in Section 5.11. This now includes consideration of all other Inland Rail projects with overlapping construction routes.	Appendix AA: Traffic Impact Assessment Section 5.11
145	145.0255	State Agency	Traffic and Transport	Cumulative impacts	There is potential for other Inland Rail projects, namely H2C, C2K and K2ARB, to increase traffic volumes on the road network, not just North Star to Border and Gowrie to Helidon, yet only North Star to Border and Gowrie to Helidon are included in Table 11.4. All Inland Rail projects should be assessed for potential overlap of haulage routes and construction schedules, not just NS2B and G2H.	The TIA should include traffic generated by all other Inland Rail projects.	The cumulative traffic assessment has been updated in Appendix AA: Traffic Impact Assessment and is documented in Section 5.11. This now includes consideration of all other Inland Rail projects with overlapping construction routes.	Appendix AA: Traffic Impact Assessment Section 5.11
145	145.0256	State Agency	Traffic and Transport		The AADT data used in the calculation of growth rates does not appear to be correct. When the finalised TIA is developed, the correct and most current traffic data is to be used (ignoring any Covid-19 impacted data). It is not correct to fill in the gaps with data from adjacent years.	All growth rates for state-controlled roads are to be agreed to by TMR.	Appendix AA: Traffic Impact Assessment, Section 2.4.1 outlines the growth rates used for assessment and all road links growth rates are provided in Table 2.8. These factors were both determined based on the closest DTMR AADT site to the road link. Both the AADT and HV growth rates were determined in response to requests from DTMR and Coordinator-General for specific HV growth rates to be imputed and be adopted for the pavement impact assessment to capture local conditions and HV data. The growth rates for assessment have been determined based on the following order of hierarchy: <ol style="list-style-type: none"> 1. 10-year growth rate 2. 5-year growth rate 3. 1 year growth rate 4. 3 per cent p. a. (Pavement Impact Assessment Practice Note (DTMR, 2018b) states 'in the absence of site-specific data, an annual growth rate of 3 per cent p. a. should be adopted'). 	Appendix AA: Traffic Impact Assessment Section 2.4.1 Table 2.8

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0257	State Agency	Traffic and Transport		The accuracy of the data supplied in Appendix D cannot be verified as the conversion of heavy vehicle types and volumes has not been supplied. This will need to be supplied to TMR as part of the development of the finalised TIA.	All data used for the PIA is to be supplied to TMR to allow for verification of the data provided.	The existing traffic volumes for all road links has been determined based on available data of background traffic volumes, growth rates, seasonal variation factors and peak hour factors. Traffic data sources are listed in Appendix AA: Traffic Impact Assessment, Table 2.5 which includes data provided by TMR. The methodology to determine the existing traffic volumes and future traffic volumes is explained in Section 2.4 Appendix AA: Traffic Impact Assessment. This methodology is consistent with the method provided to the Coordinator-General as requested as a part of the additional information request process (technical memo provided in Appendix BP of Appendix AA: Traffic Impact Assessment).	Appendix AA: Traffic Impact Assessment Section 2.4 Table 2.5 Appendix BP
145	145.0258	State Agency	Traffic and Transport		The EIS states that crossing loops will initially accommodate 1800 m long trains. There is no mention of the potential to accommodate 3600 m long trains in this section. The 3600 m long trains are mentioned in other sections of the TIA.	Update Section 3.3tc include reference to potential operations of 3600 m long trains.	The revised draft EIS Chapter 5: Project Description describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. approval for 3,600 m trains is not part of this stage of the Project for which approval is being sought.	Chapter 5: Project Description
145	145.0259	State Agency	Traffic and Transport	Construction traffic	Section 5.6.9 states that temporary laydown areas will generally involve clearing, grubbing, topsoil stripping, installing environmental controls, laying hardstand material, and constructing parking areas and access tracks.	Please provide more certainty about the use/nature of 'temporary laydown areas' and the construction stage in which they are being established (e.g. pre or during construction).	Each laydown area has been positioned to avoid or minimise potential impacts to environmental and social receptors. Laydown areas were initially selected based on investigations using aerial imagery and ground truthing to confirm general suitability and avoidance of environmental and social receptors. The draft EIS assessed these laydown areas as part of the Project and identified suitable mitigation measures. Adjustments to the laydown areas have been based on stakeholder feedback and further optimised for field validated ecology. The locations of the laydown areas have been chosen to avoid areas that are within the 1% AEP floodplains where possible, and areas of native vegetation. However, by virtue of the requirement of laydown areas for constructing bridges, some laydown areas must be within floodplains and near watercourses or drainage features. In such instances, the following precautions will be taken: <ul style="list-style-type: none"> ▶ The site will be surveyed prior to site establishment to understand the exact extent of potential flooding impact to facilities and storage areas ▶ The earthworks and temporary drainage will be designed to minimise flooding impacts Fuel storage areas will be bunded, capacity restricted to no larger than required for reasonable operations, and preferentially stored at the furthest point away from watercourses. A full list of laydown areas and their planned uses is provided in Table 5-24, Section 5.6.7 of Chapter 5: Project Description.	Chapter 5: Project Description Section 5.6.7 Table 5-24
145	145.0260	State Agency	Traffic and Transport	Construction traffic	The EIS states that laydown areas have been nominated for the Project that would need to be accessed directly off a State-controlled road, including: <ul style="list-style-type: none"> ▶ Pittsworth-Tumaville Road ▶ Southbrook Rockview Road These roads are not owned by the state government and the EIS also does not provide traffic data for these roads.	Please clarify the locations of the laydown areas that are being accessed by state-controlled roads and provide information and data for all relevant roads.	A full list of laydown areas and their planned uses is provided in Table 5-24, Section 5.6.7 of Chapter 5: Project Description.	Chapter 5: Project Description Section 5.6.7 Table 5-24
145	145.0261	State Agency	Traffic and Transport	Construction traffic	The construction route maps are small and difficult to read. It is requested that GIS files for construction haulage routes are to be provided to TMR to allow for assessment.	Provide GIS files for construction haulage routes to TMR.	The revised draft EIS has been reviewed and updated in accordance with the additional information request from the Office of the Coordinator-General. The proposed primary construction transport routes incorporated in the TIA study area are provided in Figure 1.3, with specific material transport routes provided in Appendix U to Appendix AE (Appendix AA: Traffic Impact Assessment). Ultimately, the determination of the final construction routes will be subject to the EIS approval conditions and consultation and agreement between DTMR, the relevant LGA, the construction contractor and, where relevant, QR (Appendix AA: Traffic Impact Assessment, Section 1.2). Consult with DTMR, councils, the Contractor, and where relevant QR, in determination of final construction and HV routes. Further summary of ARTC and Contractor commitments are in Section 6.2 of Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 1.2 Section 6.2 Figure 1.3 Appendix U-AE
145	145.0262	State Agency	Traffic and Transport	Construction traffic	It is unlikely that the construction schedule as plotted on the x-axis is to be achieved. The finalised TIA must contain updated versions of these graphs using the best available construction program (which may be the version supplied by the construction contractor).	Update the EIS/TIA to include construction timeframes that are more realistic.	The construction schedule has been updated as part of the revised draft EIS. The anticipated timing of stages for the Project (including for the revised draft EIS) is shown in Table 5-3, Section 5.3.6 of Chapter 5: Project Description. Pre-construction activities and early works are undertaken prior to full mobilisation of the contractor. These works may be undertaken under a separate contract but will not commence until the Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) has been approved by the Coordinator-General and the Australian Government Minister for the Environment, and the relevant early works Construction Environmental Management Plan (CEMP) has been endorsed by the Environmental Monitor.	Chapter 5: Project Description Section 5.3.6 Table 5-3 Chapter 24: Draft Outline Environmental Management Plan
145	145.0263	State Agency	Traffic and Transport	Construction traffic	Some of the graphs do not start from 0. Does that mean that construction traffic is already on the road network (as of March 2021)?	Update the EIS to ensure that there are no errors or missing information to allow stakeholders to adequately assess the information.	The construction schedule has been updated as part of the revised draft EIS. The anticipated timing of stages for the Project (including for the revised draft EIS) is shown in Table 5-3, Section 5.3.6 of Chapter 5: Project Description. Commence construction activities in the third quarter of 2024, as summarised in Table 3.6, with some site <ul style="list-style-type: none"> ▶ early works (e.g., site preparation, surveys, initial laydown areas and establishment of non-resident ▶ workforce accommodation) commencing earlier – assumed to be February 2024 as a part of the Appendix AA: Traffic Impact Assessment. 	Chapter 5: Project Description Section 5.3.6 Table 5-3 Appendix AA: Traffic Impact Assessment Table 3.6
145	145.0264	State Agency	Traffic and Transport		Some cells seem to have an error in them. Recommend ARTC provide a more final document without errors to ensure stakeholders can adequately consider the information.	Update the EIS to ensure that there are no errors or missing information to allow stakeholders to adequately assess the information.	The revised draft EIS has been reviewed and updated in accordance with the additional information request from the Office of the Coordinator-General. The process of updating the draft EIS includes, but is not limited to, technical reviews as well as quality control reviews.	N/A
145	145.0264	Private - Turallin Workers	Traffic and Transport		Some cells seem to have an error in them. Recommend ARTC provide a more final document without errors to ensure stakeholders can adequately consider the information.	Update the EIS to ensure that there are no errors or missing information to allow stakeholders to adequately assess the information.	The revised draft EIS has been reviewed and updated in accordance with the additional information request from the Office of the Coordinator-General. The process of updating the draft EIS includes, but is not limited to, technical reviews as well as quality control reviews.	N/A
145	145.0265	State Agency	Traffic and Transport	Level crossing	Level crossings] See TMRs other comments regarding level crossings Structural Adequacy The TIA report does not evaluate prevailing structural integrity issues of the transport infrastructure (for example, bridges or culverts) which may occur on any of the proposed construction transport routes. These items are to be identified and addressed in the TIA.	Amend the EIS to evaluate the prevailing structural integrity issues of the transport infrastructure (bridges, culverts etc) in accordance with Section 4.5 of GTIA.	Appendix AA: Traffic Impact Assessment Section 5.7 provides details the transport infrastructure impact assessment and mitigation undertaken for transport infrastructure in accordance with GTIA requirements. This includes bridges and culverts, heavy vehicle routes, and oversize overmass vehicles. Appendix AA: Traffic Impact Assessment Section 5.7.1 details the impact assessment and mitigation undertaken for bridges and culverts. No detailed assessment has currently been undertaken with regards to bridge and culvert limits, however, a preliminary assessment identified a number of potential construction traffic restrictions along local government roads as provided in Table 5.60. These were confirmed in a site visit, with site visit photos provided in Appendix BU of Appendix AA: Traffic Impact Assessment. Should HVs be required to traverse these bridges or culverts, an assessment will need to be undertaken and further investigation and inspections will need to take place – the outcomes of which may lead to upgrading these bridges for construction and operational purposes.	Appendix AA Traffic Impact Assessment Section 5.7 Section 5.7.1 Table 5.60 Appendix BU
145	145.0266	State Agency	Land Resources	Spoil management	According to the figures, only 1.19% of cut material is expected to be unsuitable. What degree of confidence is attributed to it in light of the volume of GI undertaken to date? i.e. roughly one borehole every 5 km	Update the EIS to confirm quantity of ground investigation undertaken so far is sufficient to provide this low % of unsuitable material and confirm degree of confidence in the figure.	A detailed geotechnical survey was undertaken in 2021 and is provided in Appendix G1: Geotechnical Reports - Investigation Results and G2: Macquarie Geotechnical - Preliminary Soil Assessment. The volume of site won cut material and fill requirements for the Project earthworks has been determined using a 12D Design Model overlain with detailed geotechnical and soil investigation data (Table 2.5: Summary of bulk Project earthworks in Appendix AB: Earthworks Strategy and Draft Soil Management Plan). This has enabled all materials that will be encountered by Project earthworks to be classified, as per material types and classification within Section 2, Part A: Draft Earthworks Strategy in Appendix AB: Earthworks Strategy and Draft Soil Management Plan. The approximate percentage of 5 per cent spoil, has been derived on the assumption that all site won material, with the exception of those classified as 'inherently unsuitable', will be re-usable within Project earthworks.	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2 Table 2.5 Appendix G1: Geotechnical Reports - Investigation Results Appendix G2: Macquarie Geotechnical - Laboratory Results
145	145.0267	State Agency	Land Resources	Spoil management	Reference is made to sodic (dispersive) soils and amelioration methods which indicate a misunderstanding on best practice amelioration methods.	In the absence of any nominated ARTC standard, include the requirement to identify, assess, ameliorate and manage the project soils as per the TMR Interim SMM, SMM Appendix 2 soil forms, TMR Soil Group Classifications Map and CSIRO Clay Mineralogy Maps.	The soils baseline assessment has provided field-verified data (including the identification of soil management units) to inform impact assessment and allow the revised reference design and future construction works to be further refined accordingly, to avoid, reduce and mitigate impacts. Site-specific soil management and mitigation measures are detailed in Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Section 3.3, which address ARTC will continue to pursue additional soil testing as required and determined during detailed design development in order to ensure the Project can manage the risks of the Project's topsoils and subsoils as per the TMR Interim Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group Classifications Map and CSIRO Clay Mineralogy Maps.	Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.3
145	145.0268	State Agency	Land Resources	Spoil management	There is also a blanket approach to topsoil stripping which can result in the contamination of stripped topsoil with sodic and or saline subsoils (and other high-risk subsoils). Additionally, reference is made to a Soil Management Sub-plan but only refers to the inclusion of contaminated soils and ESC in the plan.	It is recommended that the EIS be amended to include topsoil and subsoil, surveying, assessment and management, topsoil stripping depths, and soil amelioration in the Soil Management Sub-plan.	A detailed soil investigation (see Section 4.5 of Appendix J: Soil Assessment Report) has been undertaken along the Project footprint to further understand the soil properties and refine existing soil mapping. Findings from the detailed soil investigation have informed soil-specific management measures (Chapter 9: Land Resources, Section 9.3.2 and Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Section 3.3) and will assist in planning, detailed design of structures, embankments, erosion control measures (both temporary and permanent), soil treatment and management, and site rehabilitation planning. Soil handling protocols prioritising the protection of topsoil have been detailed in a Soil Management Plan in Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Part B (Section 3). A Project concept erosion and sediment control plan (concept ESCP) will be developed to guide the development of area, site or Section specific ESCPs and include detailed erosion hazard assessments and ESC structure designs. Each of these will need to be regularly updated and maintained during construction. Topsoil is aimed to be progressively salvaged, appropriately stockpiled and then reused within the construction footprint. A commitment for the Contractor to develop a stockpile management plan is included within Chapter 24: Draft Outline Environmental Management Plan. Soil degradation as a result of weeds has been considered in the revised draft EIS (Chapter 9: Land Resources, Section 9.5.6) as a potential impact. Biosecurity risk is considered in Chapter 11: Flora and Fauna. The revised draft EIS provides management measures for stockpiling and management/segregation of topsoil where it contains weed material. Details of the Biosecurity Management Plan prepared for the Project are outlined throughout Chapter 24: Draft Outline Environmental Management Plan with proposed mitigation measures detailed in the chapter.	Chapter 9: Land Resources Section 9.3.2 Section 9.5.6 Chapter 24: Draft Outline Environmental Management Plan Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.3 Section 3.3 Appendix J: Soil Assessment Report Section 4.5
145	145.0269	State Agency	Land Resources	Spoil management	Contrary to the EIS, existing railway corridors are not considered potential sources of contamination. They are to be assumed fully contaminated and ARTC have acknowledged this in their PSTR.	Update the EIS to remove existing railways from list of potential contamination and acknowledge that existing railway corridors are to be assumed as fully contaminated.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9.17 and the full results will be presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. The investigation included the identification of potential sources of contamination within the impact assessment area through a desktop assessment (Chapter 9: Land Resources, Section 9.4.5) and also included findings from a limited contaminated land investigation completed by Macquarie Geotech within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Consistent with the requirements of ASC NEPM, the data quality objectives for contaminated land investigations need to be informed by detailed design information (e.g. proposed future re-use of materials). A contaminated land management strategy for any future assessments is provided in Chapter 9: Land Resources, Section 9.6.2 and Figure 9-24.	Chapter 9: Land Resources Section 9.4.5 Section 9.6.2 Table 9-15 Table 9-24 Appendix I: EMR Search Certificates and Soil Laboratory Certificates

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0270	State Agency	Land Resources	Proponent commitments	With reference to land resources, there should be a commitment to meet the requirements of TMR's MRTS16 and TMR's Interim SSM. This includes the requirement to; to identify and assess the project soils as per the TMR Interim SSM, SMM Appendix 2 soil forms, TMR Soil Group Classifications Map and CSIRO Clay Mineralogy Map, for the suitably qualified soil practitioner to be a CPSS as per the TMR Interim SSM.	Amend the EIS and Proponent Commitments to ensure that the applicant meet the requirements of the MRTS16 and the Interim SSM.	ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at 1:10,000 scale in consultation with DoR. Soil management units from the investigation are provided in Section 4.5. This level of investigation is sufficient to allow determination of the suitability of the soils and to manage the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides general and site-specific soil management measures in Section 3.2 and 3.3.	Appendix J: Soil Assessment Report Section 4.5 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3
145	145.0271	State Agency	Surface Water	Proponent commitments	Surface water quality should, in addition to rain events, be monitored weekly during or prior to site inspection and daily visual site observation that there is a change in turbidity or visual contamination such as oil. Moreover, downstream water quality should be compared against baseline and upstream water quality sampling.	It is recommended that water quality monitoring be undertaken following significant rain events, weekly during site inspections, and daily after visual site observation that indicate a change in turbidity or contamination such as oil, or environmental incident or compliant. Amend the EIS. Proponent Commitments and Outline Environmental Management Plan accordingly.	The locations, frequency and parameters of interest for water quality sampling during construction will be subject to confirmation as part of the CEMP. The frequency and location of surface water sampling during construction of the Project will be established with consideration for: <ul style="list-style-type: none"> Construction activities with potential to impact water quality Seasonality Sensitivity of receiving watercourse. Water quality monitoring requirements will be developed in consultation with DRDMW and DES, to be reviewed and accepted by the Environmental Monitor. This is documented in Section 13.6.3 of Chapter 13: Surface Water. 	Chapter 13: Surface Water Section 13.6.3
145	145.0273	State Agency	Traffic and Transport	Proponent commitments	Regarding traffic and transport, ARTC is only committing to undertaking further assessment, but there is no commitment to undertake any the requirements or mitigation measures identified in the traffic impact assessment.	Amend the EIS (including Proponent Commitments) to ensure ARTC commits to undertaking the mitigation measures required as a consequence of the updated TIA. This includes any pavement contribution as a consequence of the updated PIA, upgrading any necessary intersections, as well as the requirement to develop and implement the outcomes of a Road-use Management Plan. Additionally, ARTC should continue to work with TMR regarding the appropriate mechanism to manage impacts to the State-controlled road (for example "an infrastructure agreement).	Any proposed mitigations identified within Appendix AA: Traffic Impact Assessment are the baseline mitigation measures for the Project. The construction contractor will further develop the alignment design, determine their construction methodology and construction routes are finalised, specific mitigation measures on top of these baseline mitigations will be required to be developed and applied to the Project. A Traffic Management Plan (TMP) and Road Use Management Plan (RUMP) will be prepared for the Project in accordance with the GTIA to support works to the existing road network. This will be developed in consultation with DTMR, local councils and emergency service providers and will be finalised prior to the commencement of construction.	Appendix AA: Traffic Impact Assessment
145	145.0274	State Agency	Waste and Resource Management		Waste will be managed in accordance with the waste hierarchy by reducing the amount of waste generated in the first instance, the segregation of waste into waste streams to facilitate appropriate reuse, recycle, waste recovery for fuel/energy and least preferable, dispose.	Update the EIS to ensure waste will be managed in accordance with the waste hierarchy by reducing the amount of waste generated in the first instance, the segregation of waste into waste streams to facilitate appropriate reuse, recycle, waste recovery for fuel/energy and least preferable, dispose.	As per Section 22.6 of Chapter 22: Waste and Resource Management, mitigation measures pertaining to waste management have been developed for the Project in accordance with relevant legislative requirements, aligning with the 2018 National Waste Policy and the Waste Reduction and Recycling Act 2011 (Qld) hierarchy. Waste management strategies that avoid the generation of waste materials in the first instance will be prioritised. Where waste cannot be avoided, waste materials will be segregated by type for collection and removal by licenced contractors.	Chapter 22: Waste and Resource Management Section 22.6
145	145.0275	State Agency	Outline EMP		Regarding the Environmental Management Plan, the Construction Environmental Management Plan is required to have an Erosion and Sediment Control Sub-Plan.	Update the EIS (Outline Environmental Management Plan and Proponents Commitments) to ensure that an Erosion and Sediment Control Sub-Plan is required.	An Erosion and Sediment Control Plan will also be developed as a component of the Construction Environmental Management Plan (CEMP) (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
145	145.0276	State Agency	Editorial		Appendix Z: Proponent Commitments Table 1, for the Environmental Management Plan, the dot point Appointment of an Environmental Monitor to: repeats twice. Consider removing the second reference to Environmental Monitor.	Consider removing second reference to appointing an environmental monitor and continue sequence of dot point comments.	The contents of draft EIS Appendix AC: Proponent Commitments, Table 1: Summary of ARTC Project Commitments have been relocated to Chapter 24: Draft Outline Environmental Management Plan under the Roles and Responsibilities Section in the revised draft EIS. The second reference in the Table to the need for an Environmental Monitor has been corrected to Community Relations Monitor.	Chapter 24: Draft Outline Environmental Management Plan
146	146.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report). The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
146	146.0002	Private - Turallin Workers	Traffic and Transport		a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. b. Increase in traffic on narrow roads that are already heavily traversed. c. Impact on Travel time as it is further from the alignment of the rail project. d. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. e. Could impact on Millmerran town parking availability.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report). The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
146	146.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage. Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility. As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for: <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.3738 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
146	146.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
146	146.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
146	146.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 5: Project Description Section 5.6.4 Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6
146	146.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
146	146.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. Refer to Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.6 Section 11.7

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
147	147.0001	Private	Land Resources	Severance of agricultural land	Project will destroy and cause loss of strategic cropping land on submitter's property. The rail cuts off most valuable Section of the farm which is also where the water bore is located. This will impact the farm's economic viability. Loss of farmland/strategic cropping land is a loss to Queensland not just the farm owners.	Realign the corridor to the one suggested at the Senate Inquiry that travels further to the west of the current Wellcamp to Gowrie corridor (refer submission).	<p>The Project has been aligned to be co-located with existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However, for several reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land. Chapter 8: Land Use and Tenure, Section 8.5.1, has been updated for the revised draft EIS, detailing land to be sterilised due to the revised alignment. ARTC will continue to engage with affected landowners to minimise impacts on existing agricultural practices.</p> <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10, of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>Where the loss of agricultural land was unable to be avoided, refinement of the horizontal alignment was considered (among other environmental, social, cultural, economic and technical constraints), and placement of the rail corridor such that it traverses around or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided (Chapter 8: Land Use and Tenure, Section 8.5.4 Table 8-46).</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed based on these over-arching factors; therefore, a like-for-like replacement for the loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint cannot avoid the severance of agricultural land and enterprises due to the partial property acquisition, the acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design in accordance with the <i>Acquisition of Land Act 1967</i> (Qld) (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46
147	147.0003	Private	Surface Water	Private groundwater bore/s	Concerned about loss of rapid aquifer recharge water bore. Reliable bore water supply underpins value of the property, which may not be replicated north of the proposed rail corridor.	Move the rail corridor.	<p>It is acknowledged that the rail corridor will separate the submitter's southern Section of the property containing the bore from the remainder of the property, including buildings, to the north. ARTC is in the process of consulting with landowners to determine an appropriate make-good strategy on a case-by-case basis. Through this process, the measures developed for each impacted bore will be unique and commensurate with the level of impact realised (Chapter 15: Groundwater, Section 15.7.4).</p> <p>Impacts to groundwater during construction and operation will be monitored as part of the Groundwater Management and Monitoring Program (GMMP). Monitoring will be performed at locations (distance and depth/aquifer) up and down-gradient of the site where construction activities are occurring and at reference bores outside the anticipated extent of impact (Chapter 15: Groundwater, Section 15.7.3). If the submitter is concerned about the potential for impacts to their bore, then the submitter can contact ARTC at inlandrailqld@artc.com.au to nominate the bore for inclusion in the GMMP.</p> <p>Where a groundwater bore is expected to be decommissioned or have access/usage impaired as result of the Project, 'make good' measures will be agreed in consultation with the affected landowners during detailed design. An overview of the draft bore groundwater 'make-good process' is presented on Figure 15-31 of Chapter 15: Groundwater. If the landowner does not accept the 'make good' assessment (either whether there is an impairment in the first place, or the level of impairment), ARTC will:</p> <ul style="list-style-type: none"> Advise the landowner that they are entitled to obtain an assessment from a suitably qualified person (SQP) Advise the landowner that ARTC will pay their reasonable costs Provide ARTC's bore assessment to the landowner for review by the landowner's SQP Advise landowners of their expectations as to the reasonable costs of obtaining a bore assessment. 	Chapter 15: Groundwater Section 15.7.3 Section 15.7.4 Figure 15-31
148	148.0001	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project.	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
148	148.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
148	148.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
148	148.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment). Appendix X: Social Impact Assessment, notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan Section, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0010	State Agency	Approvals/ conditions/ recommendations		Any condition within the Department of Resources submission is a recommended imposed condition. The Department of Resources can assist by providing technical advice to the Coordinator-General if the need arises.	For noting by the OCG.	This issue is noted. Submission is to be considered by the Office of the Coordinator-General.	N/A
149	149.0020	State Agency	Editorial		Recent machinery of government changes has resulted in state agency name changes, since the EIS was drafted. Therefore, all references to the former Department of Natural Resources, Mines and Energy (DNRME), require amending to either the Department of Resources or the Department of Regional Development, Manufacturing and Water (DRDMW) to reflect machinery of government changes. In general, this will require all references to the former DNRME, in sections that do not relate to water matters, being changed to Department of Resources.	Change all references to the former Department of Natural Resources, Mines and Energy, to either Department of Resources or Department of Regional Development, Manufacturing and Water (DRDMW) to reflect machinery of government changes.	Department names have been reviewed and updated throughout the EIS. In some circumstances it is appropriate to maintain older name of previous departments where it applies to reports or guidelines that were prepared by a previous department.	N/A
149	149.0030	State Agency	Editorial		The department and unit name relating to State Land interests needs to be amended throughout the Draft EIS to reflect recent machinery of government/departmental changes.	Change all references in the Draft EIS from State Land Asset Management (SLAM), to Land Administration and Acquisition (LAA). Change all references to the departments name (relating to State Land) from Department of Natural Resources, Mines and Energy, to Department of Resources.	A detailed review of all Government department names has been undertaken throughout the EIS to ensure currency and continuity.	N/A
149	149.0040	State Agency	Approvals/ conditions/ recommendations	Land acquisition/ compensation	Table 3.5 (Land Act and NT Act row) State land dealings may take an extended amount of time to resolve and early engagement is recommended to minimise the risk of any delays to the project.	Amend Table 3.5 Land Act and NT Act row to include additional column (as included in Chapter 3: Project Approvals Table 3.4 of Calvert to Kagaru draft EIS) Indicative approval processing timeframe. Under this new column include the following: No statutory timeframes can be lengthy and early engagement with Department of Resources is required. For noting: Department of Resources, Land Administration and Acquisition contact: Julie Douglas Senior Land Officer Department of Resources PO Box 2 (Corner of Fitzroy and Guy Streets) Warwick QLD 4370 SLAM warwick@resources.qld.gov.au Recommended condition If the above changes are not made to Table 3.5, it is recommended that the OCG impose the following condition on the EIS: Development on State Land, including road, must obtain relevant Land Act 1994 approvals through the administering authority the Department of Resources, Land Administration and Acquisition, unless another appropriate legislative land dealing process i.e., under the Transport Infrastructure Act 1994 is implemented.	The submitters recommendations have been adopted according to consultation detailed in Section 5.2 and Table E-18, E-38 and E-73 of revised draft EIS Appendix E: Consultation Report.	Appendix E: Consultation Report Section 5.2 Tables E-18, E-38 and E-73
149	149.0050	State Agency	Land Use and Tenure		No mention of the Land Act 1994 upfront and within the introduction of Chapter 7 Land Use and Tenure. The Land Act 1994 and associated State land policies will play a significant role in enabling tenure/land dealings required to facilitate the Inland Rail project.	Amend Section 7.1 Introduction to include the additional text: "This Chapter identifies the land use and tenure aspects relevant to the Project and, in doing so, addresses the following: The relevant legislative context including the Land Act 1994 for land use and tenure for the Project (refer Section 7.3)".	This issue is noted. The legislation and relevant planning instruments Section have been updated to incorporate all legislation of relevance. Chapter 8: Land Use and Tenure, Section 8.2 and 8.4.1 have been updated to incorporate the Land Act 1994 and other legislation as relevant to land use and tenure.	Chapter 8: Land Use and Tenure Section 8.2 Section 8.4.1
149	149.0060	State Agency	Land Use and Tenure		Table 7.2 Policies, Standards and Guidelines Relevant to the Project does not include any information on the Land Act 1994. The relevance of the Land Act 1994 needs to be described in Table 7.2 because multiple parcels of State Land will be impacted by the project (as stated in Appendix V). Additionally, Chapter 3 Legislation and Project Approvals Process, Section 3.5.14 Land Act 1994, states that the Land Act 1994 will be used in tenure processes, therefore Table 7.2 needs to be updated accordingly.	Amend Table 7.2 by adding a row for the Land Act 1994 (QLD) and include a description under the Relevance to the Project heading stating how the Land Act 1994 will be used for tenure dealings. This has not been included in Table 7.2 Policies, Standards and Guidelines relevant to this Assessment, Page 734. Recommended condition: If the above changes are not made to Table 7.2, it is recommended that the OCG impose the following condition on the EIS: Development on State Land, including road, must obtain relevant Land Act 1994 approvals through the administering authority the Department of Resources, Land Administration and Acquisition, unless another appropriate legislative land dealing process i.e., under the Transport Infrastructure Act 1994 is implemented.	This issue is noted. The legislation and relevant planning instruments been updated to incorporate all legislation of relevance. Chapter 8: Land Use and Tenure, Section 8.2 has been updated to incorporate the Land Act 1994 and other legislation as relevant to land use and tenure.	Chapter 8: Land Use and Tenure Section 8.2
149	149.0070	State Agency	Land Use and Tenure		State land dealings may take an extended amount of time to resolve and early engagement is recommended to minimise the risk of any delays to the project.	Include additional text in Section 7.5.1 to identify that tenure processes under the Land Act 1994 will be complied with. For example, amend the EIS to include the following: In some instances, appropriate tenure or interest in State land, that supports the proposed development, will be secured by ARTC under the Land Act 1994. In this case, contact must be made as soon as possible with the Department of Resources Land Administration and Acquisition Team to discuss options and to begin proceedings under the Land Act 1994. For noting: Department of Resources, Land Administration and Acquisition contact: Julie Douglas Senior Land Officer Department of Resources PO Box 2 (Corner of Fitzroy and Guy Streets) Warwick QLD 4370 SLAM warwick@resources.qld.gov.au Recommended condition: If the above changes are not made to Section 7.5.1, it is recommended that the OCG impose the following condition on the EIS: Development on State Land, including road, must obtain relevant Land Act 1994 approvals through the administering authority the Department of Resources, Land Administration and Acquisition, unless another appropriate legislative land dealing process i.e., under the Transport Infrastructure Act 1994 is implemented.	Chapter 8: Land Use and Tenure has been amended accordingly. Section 8.5.1 Permanent change in tenure and loss of property, has been updated and now includes the following text: In some instances, appropriate tenure or interest in State land that supports the proposed development will be secured by ARTC under the Land Act 1994. In these cases, contact will be made as soon as reasonably practicable with the Department of Resources Land Administration and Acquisition Team to discuss options and to begin proceedings under the Land Act 1994.	Chapter 8: Land Use and Tenure Section 8.5.1
149	149.0080	State Agency	Land Use and Tenure	Baseline/backgroud sampling	While this Section mentions revocation of State Forest, no mention is made of the impact on the grazing leases on State forest.	Include additional text in 7.6.1 Permanent change in tenure and loss of property "State forest revocation page 7, 158 and 7.7.2.1 Change in land tenure and loss of property State forest 180", to identify that impacts on grazing leases over State forests may require tenure processes under the Land Act 1994. For example, where grazing leases over State Forests are impacted, it is recommended that ARTC contact the Department of Resources, Land Administration and Acquisition Team as soon as possible to discuss options and to begin proceedings under the Land Act 1994. For noting: Department of Resources, Land Administration and Acquisition contact: Julie Douglas Senior Land Officer Department of Resources PO Box 2 (Corner of Fitzroy and Guy Streets) Warwick QLD 4370 SLAM warwick@resources.qld.gov.au Recommended condition: If the above changes are not made to Section 7.6.1 and 7.7.2.1, it is recommended that the OCG impose the following condition on the EIS: Development on State Land, including road, must obtain relevant Land Act 1994 approvals through the administering authority the Department of Resources, Land Administration and Acquisition unless another appropriate legislative land dealing process i.e., under the Transport Infrastructure Act 1994 is implemented.	This issue is noted. The revised draft EIS, Chapter 8: Land Use and Tenure, Section 8.5.1 Impacts to State Forests has been updated to incorporate the recommended text. The following has been included in the update: The Project footprint traverses with grazing leases over the Bringally and Whetstone State forest. ARTC plan to negotiate the full or partial surrender of these leases with lessees. If unsuccessful, ARTC will require Department of Transport and Main Roads, as the constructing authority, to make a request to DoR to progress the resumption of these leases by way of order in council under the Land Act 1994 (Qld).	Chapter 8: Land Use and Tenure Section 8.5.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0090	State Agency	Land Use and Tenure		<p>This Section needs to be updated to include a description of the impacts of the project on land administered under the Land Act 1994. The following public uses will be impacted by the Project: Goondiwindi Regional Council LGA</p> <ul style="list-style-type: none"> 1SP150781 Reserve for Parks and Gardens permanent impact to footpath and infrastructure. 1Y5698 Reserve for Recreation southern access road and small part of cricket oval permanently impacted. 37MH878 Reserve for Camping & Water (Stock Route Reserve Primary & Open with water facility) - eastern boundary of reserve and adjacent access road permanently impacted. 89SP140808 Reserve for Racecourse small area of permanent impact (0.01 ha identified in Appendix V). 2Y56916 Reserve for Local Government small areas temporarily impacted (0.03 ha identified in Appendix V). 41MH778 Reserve for Local Government small area along northern boundary temporarily impacted (0.05 ha identified in Appendix V). 110SP171826 Reserve for Pasturage (Stock Route Reserve Minor & Unused, Open) permanent impact, possible fragmentation. Toowoomba Regional Council LGA. 84SP109985 Reserve for Recreation 100% of reserve permanently impacted. 140DER34129 Reserve for Water 	<p>Update Sections 7.6.1 to include potential impacts on land administered under the Land Act 1994. Specifically list the following reserves in Section 7.6.1. Goondiwindi Regional Council LGA</p> <ul style="list-style-type: none"> 1SP150781 Reserve for Parks and Gardens permanent impact to footpath and infrastructure. 1Y5698 Reserve for Recreation southern access road and small part of cricket oval permanently impacted. 37MH878 Reserve for Camping & Water (Stock Route Reserve Primary & Open with water facility) eastern boundary of reserve and adjacent access road permanently impacted. 89SP140808 Reserve for Racecourse small area of permanent impact (0.01 ha identified in Appendix V). 2Y56916 Reserve for Local Government small areas temporarily impacted (0.03 ha identified in Appendix V). 41MH778 Reserve for Local Government small area along northern boundary temporarily impacted (0.05 ha identified in Appendix V). 110SP171826 Reserve for Pasturage (Stock Route Reserve Minor & Unused, Open) permanent impact, possible fragmentation. Toowoomba Regional Council LGA 84SP109985 Reserve for Recreation 100% of reserve permanently impacted. 140DER34129 Reserve for Water. Also, within sections 7.6.1 refer to Appendix F: Impacted Properties. In doing so acknowledge that Appendix F contains the complete and inclusive description of all parcels of State land proposed to be impacted. 	<p>This issue is noted. The properties listed in this comment summary have been reviewed.</p> <p>Chapter 8: Land Use and Tenure, Section 8.5.1 of the revised draft EIS has been updated to include details of specific impacts to Land Act 1994 (Qld) parcels provided within the Submission comment and Proposed Solution and the requested reference to Appendix F: Impacted Properties is provided.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Appendix F: Impact Properties</p>
149	149.0100	State Agency	Flora and Fauna	Mitigation measures	<p>The following advice was previously provided to ARTC, however continues to be absent from the draft EIS:</p> <ul style="list-style-type: none"> Gates are to be incorporated across the rail track so to prevent stock from entering the track corridor while crossing the track. Minimum stock crossing width of 7.3 m has been stipulated to provide practical movement of large mobs through the opening while minimising injury to stock and damage to infrastructure from animal pressure. When reviewing the Typical Private Level Crossing for High Use Livestock and Machinery with Rail Maintenance Access Road - Drawing STD-T0169 within Appendix M Preliminary Fauna Movement Provision and Fencing Strategy, it is apparent that neither stock routes advice have been incorporated. 	<p>Resources recommends the Coordinator General includes the following condition on the EIS approval: Gates are to be incorporated across the rail track so to prevent stock from entering the track corridor while crossing the track and A minimum stock crossing width of 7.3 m is provided across the rail/track corridor. Or To the satisfaction of the Chief Executive administering the Stock Route Management Act 2002, an alternative livestock crossing design which facilitates the practical movement of large mobs of livestock across the rail track corridor while minimising injury to livestock and damage to infrastructure from animal pressure is sought.</p>	<p>As described in Chapter 8: Land Use and Tenure of the EIS, the revised reference design has been developed to provide continued connectivity and functionality along each stock route and where reasonably practicable a grade separated solution such as an underpass has been included in the design. The revised reference design for the Project interfaces the stock route network in 11 locations. Details of these stock routes and the potential impacts, and along with the proposed interface treatments are outlined in Table 8-35.</p> <p>In circumstances where the Project has the potential to impact on existing stock routes, ARTC has consulted with DoR, GRC and TRC to identify potential solutions for potential solutions for the treatment of rail and stock route interfaces. This consultation will continue through the Detailed Design stage and as the construction approach is confirmed to further ensure that potential impacts are appropriately managed. For example, construction activities for the Project may result in temporary disruption to the connectivity of the stock route network, particularly in and around the rail-road interface locations. Stock routes mitigation outcomes stated in Appendix E: Consultation Report includes scope to be determined on a case-by-case basis and basis scope documented within third-party agreement with further engagement noted. In addition to the State stock route network, there may also be private stock routes that are used to transfer stock to various grazing paddocks and holding yards within or across the Project footprint. Consultation is ongoing with individual landowners within the Project footprint to identify property-specific impacts, if any, to private stock routes.</p> <p>Of the 11 stock route interfaces along the Project alignment, 5 are proposed to be at grade level crossing treatments, with 2 of these coinciding with formed public roads (shared use) (Chapter 8: Land Use and Tenure, Table 8-35). Several risk workshops have been conducted to support the development of shared use level crossing designs for greenfield Projects. ARTC acknowledge the controls that have been put forward and propose the following approach:</p> <ul style="list-style-type: none"> ARTC accept this requirement and will ensure that all level crossings where there is a travelling stock route are designed to have a minimum width of 7.3 m. Gates across the track are not supported by ARTC for the following reasons: <ul style="list-style-type: none"> Track gates are not an accepted stock crossing design feature as this is inconsistent with ARTC Safety Management System and the rules that govern ARTC Network. In forming the response to DOR's submission, a review was undertaken of ARTC's incident data across the whole network with the result being that there was very little evidence of stock getting hit at a level crossing. Although the risk is low, we understand that the community is concerned about the potential for stock to access the railway corridor at a level crossing and then potentially getting hit by a train. Cattle grids will be used at the rail tracks near level crossings to avoid cattle entering the corridor. ARTC will continue to work collaboratively with DoR and council on the design solution for these locations during Detailed Design stage. 	<p>Chapter 8: Land Use and Tenure Table 8-35 Appendix E: Consultation Report Section 5.5</p>
149	149.0110	State Agency	Approvals/ conditions/ recommendations	Terrestrial flora	<p>Category C areas (high value regrowth) - The EIS identifies that clearing of category C areas will occur or is proposed to occur as a result of the Project. Clearing vegetation to the extent the clearing is in any category C areas is not for a relevant purpose under the Vegetation Management Act 1999. Accordingly clearing of vegetation in these areas cannot be approved under a development approval. Clearing vegetation in any category C areas must be undertaken as exempt clearing work or in accordance with an Accepted Development Vegetation Clearing Code (ADVCC). Clearing vegetation in any category C areas that is not exempt or not in accordance with an ADVCC is prohibited development. Exchange Areas - Clearing of category C areas in accordance with an ADVCC may require the provision of an exchange area if the clearing exceeds the area or widths prescribed in the ADVCC. Exchange areas must be legally secured either through a voluntary declaration or a property map of assessable vegetation and must be managed in accordance with a management plan. The exchange area must comply with the exchange areas Section of the ADVCC under which the clearing is being notified.</p>	<p>For noting.</p>	<p>This issue is noted. According to Table 11.1 (Section 11.2) of Chapter 11: Flora and Fauna, the clearing of vegetation regulated under the VM Act (e.g. Category B and C regulated vegetation) will occur as a result of the Project. Regulated regrowth vegetation (in this instance, Category C areas only) can be undertaken as exempt clearing, or in accordance with an accepted development vegetation clearing code – refer to revised draft EIS Chapter 3: Legislation and Project Approvals Process, Section 3.4.33.</p> <p>Clearing of relevant remnant or regulated regrowth vegetation constitutes operational works under Schedule 10 of the Planning Regulation that will require development approval, unless the clearing is exempt clearing work, or the clearing is undertaken in accordance with an accepted development clearing code. Under Schedule 21, Part 1, Item 14 of the Planning Regulation, the following clearing work is 'exempt clearing work' for which a development permit is not required:</p> <ul style="list-style-type: none"> Clearing vegetation for the construction or maintenance of infrastructure stated in Schedule 5, if: <ul style="list-style-type: none"> the clearing is on a designated premises, or the infrastructure is government supported transport infrastructure. <p>The clearing of vegetation regulated under the VM Act (e.g. Category B and C regulated vegetation) is considered to be eligible for exemption under Schedule 21 of the Planning Regulation (i.e. government supported transport infrastructure) and does not require a development approval. This includes clearing for early works and pre-construction activities, including the establishment of laydown areas and access roads as described in Section 5.5 of Chapter 5: Project Description (Chapter 3: Legislation and Project Approvals Process).</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.433 Chapter 5: Project Description Section 5.5 Chapter 11: Flora and Fauna Section 11.2 Table 11.1</p>
149	149.0120	State Agency	Flora and Fauna	Terrestrial flora	<p>Section 3.5.9.3 states an initial assessment of Significant Residual Impacts on prescribed matters has been undertaken against the Department of Environment and Heritage Protection (2014) Significant Residual Impact (SRI) Guideline and the Department of the Environment, Water, Heritage and the Arts (Department of the Environment, 2013) Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. However, an assessment of significant residual impacts should also be assessed against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014), because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation as government supported transport infrastructure, and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016.</p>	<p>Amend Section 3.5.9.3 to include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For noting: The DSDILGP SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dsdmippr.blob.core.windows.net/general/dsdilp-significant-residual-impact-guideline.pdf.</p>	<p>ARTC considers that Inland Rail is Government Supported Transport Infrastructure under the Planning Act 2016. Accordingly, Inland Rail meets the requirements for government supported transport infrastructure for the Planning Regulation.</p> <p>Chapter 3: Legislation and Project Approvals Process (Section 3.421) has been revised to reflect that the Project is Government Supported Transport Infrastructure under the Planning Act 2016 because:</p> <ul style="list-style-type: none"> it is infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. <p>The Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project.</p> <p>The revised draft EIS has been updated to reflect DoR and other State agency comments.</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report includes assessment of impacts in accordance with the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been amended to provide further clarification on the use of the relevant SRI guideline.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.421 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
149	149.0130	State Agency	Approvals/ conditions/ recommendations	Terrestrial flora	<p>Sections 3.5.19.2 and 3.5.31 and Table 3.5 states that clearing within the gazetted project footprint will be exempt clearing for the construction of government supported transport infrastructure under Schedule 21 of the Planning Regulation 2017. It is the Department of Resources understanding that the State is yet to confirm if the project is government supported transport infrastructure. Until this is confirmed, the related vegetation clearing exemption does not apply. This should be more clearly reflected and articulated throughout Chapter 3.</p>	<p>Amend sections 3.5.19.2 and 3.5.31 so that there is no ambiguity surrounding the fact that clearing vegetation for the development will require a development approval unless the project is confirmed as government supported transport infrastructure by the Queensland Government. This should be identified upfront in these sections rather than at the end. Amend Table 3.5 to clearly identify if a development approval will be required for clearing vegetation on prescribed land unless the clearing is exempt. For noting: To confirm application of exemptions, and requirements for any approvals and permits under the States vegetation management framework, the proponent is advised to contact the State Assessment Referral Agency (SARA) in the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP): planning.qld.gov.au/contact-us.</p>	<p>Section 3.2 of Chapter 3: Legislation and Project Approvals Process discusses the permits and approvals that are expected to be required and that will be obtained following the Coordinator-General's evaluation report (also outlined in Table 3-5 of the revised draft EIS).</p> <p>Inland Rail is Government Supported Transport Infrastructure under the <i>Planning Act 2016</i>. Inland Rail meets the requirements for government supported transport infrastructure pursuant to the <i>Planning Regulation 2017</i>.</p> <p>Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the <i>Planning Act 2016</i> based on, the following:</p> <ul style="list-style-type: none"> it is infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. <p>The Coordinator-General may state conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.2 Section 3.421 Table 3-5</p>
149	149.0140	State Agency	Approvals/ conditions/ recommendations	Terrestrial flora	<p>Section 3.5.31.3 Project compliance, implies that some proposed clearing may not be exempt under Schedule 21 of the Planning Regulation 2017 and therefore may require approval. However, this clearing cannot be currently identified. Without the details of these proposed developments, no assessment of vegetation clearing can be undertaken, and therefore no specific conditions to attach to any approval can be provided.</p>	<p>Amend the EIS to clearly identify the location, extent and purpose of any clearing that will not be conducted in accordance with an applicable exemption in Schedule 21 of the Planning Regulation 2017. Recommended Condition: It is recommended that the Coordinator-General include a condition on the EIS approval that ensures clearing of native vegetation must only occur for the following: Exempt clearing work (as defined in Schedule 21 of the Planning Regulation 2017); or Where it complies with an Accepted Development Vegetation Clearing Code; or Where it complies with a development approval for clearing native vegetation</p>	<p>Inland Rail is Government Supported Transport Infrastructure under the <i>Planning Act 2016</i>. Inland Rail meets the requirements for government supported transport infrastructure pursuant to the <i>Planning Regulation 2017</i>.</p> <p>Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the <i>Planning Act 2016</i> based on the following:</p> <ul style="list-style-type: none"> it is infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. <p>The Coordinator-General may impose stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.421</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0150	State Agency	Approvals/ conditions/ recommendations	Terrestrial flora	Pre-construction activities/early works - Section 5.3 identifies some pre-construction activities and early works that may involve clearing including surveying, establishment of access tracks, and utility and service relocations. The extent and location of these works has not been identified and it is unclear whether any associated clearing could be carried out as exempt clearing. Environmental and planning approvals - Section 5.3.1 states clearing of vegetation is exempt under Schedule 21, Part 1, item 14 of the Planning Regulation 2017 i.e. for government supported transport infrastructure. As identified elsewhere, until the exemption is confirmed the clearing exemption does not apply. Laydown, Stockpile and Storage Areas - Section 5.4.7 states laydown, stockpile and storage areas, including constructing parking areas and associated access tracks will be required along the length of the Project corridor and may involve the clearing of vegetation. It is unclear whether these will be able to be carried out as exempt clearing.	Amend the EIS to identify the location and extent of any clearing required for pre-construction/early works and any laydown, stockpile, and storage areas, particularly any works located outside of the gazetted development footprint. The EIS must detail whether these works are proposed to be carried out under the government funded transport infrastructure exemption (if it is confirmed that it applies to the project), or whether other exemptions/clearing codes or approvals need to be considered. Amend Section 5.3.1 to remove ambiguity surrounding the fact that clearing vegetation for all aspects of the development will require a development approval unless clearing is carried out under an exemption or an applicable ADVCC. This is particularly relevant for statements that refer to Schedule 21, Part 1, item 14 of the Planning Regulation 2017 for government supported transport infrastructure. To confirm application of exemptions, and requirements for approvals and permits under the States vegetation management framework, the proponent is advised to contact the State Assessment Referral Agency (SARA) in the DSDILGP: planning.qld.gov.au/contact-us .	Details of the locations and extents of all clearing required for pre-construction activities and early works will not be finalised until detailed design. Similarly, approval process details for those pre-construction and early works will not be fully determined until the Coordinator-General's Evaluation Report has been completed along with any attached conditions. Section 3.21 of Chapter 3: Legislation and Project Approvals outlines that the Coordinator-General may impose conditions (stated conditions must be imposed on subsequent development approvals) and make recommendations for other approvals required by the Project. The revised draft EIS has been updated to reflect DTMR and other State agency comments.	Chapter 3: Legislation and Project Approvals Process Section 3.21
149	149.0160	State Agency	Flora and Fauna	Terrestrial flora	Table 10.2 lists the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline is to be used to assess for SRI impacts on MSES. However, an assessment of SRI impacts should also be assessed against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014), because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation 2017 as government supported transport infrastructure, and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016.	Amend Table 10.2 to include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For Noting: The DSDILGP's SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dsdmipprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	ARTC considers that Inland Rail is Government Supported Transport Infrastructure under the Planning Act 2016. Accordingly, Inland Rail meets the requirements for government supported transport infrastructure for the Planning Regulation. Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the Planning Act 2016 because: <ul style="list-style-type: none"> It is infrastructure for transport, being rail transport infrastructure It is infrastructure for transport that is for public use and It is funded partly by the Commonwealth Government. The Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project. The revised draft EIS has been updated to reflect DoR and other State agency comments and includes assessment of impacts against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014), see Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Chapter 3: Legislation and Project Approvals Process Section 3.421 Appendix L: Terrestrial and Aquatic Ecology Technical Report
149	149.0170	State Agency	Flora and Fauna	Terrestrial flora	Sensitive environmental receptors for MSES - Section 10.4.2 states that sensitive environmental receptors for the project are those defined as prescribed environmental matters in Part 2, Section 5 of the Environmental Offsets Regulation 2014. However, while Section 10.4.2 identifies regional ecosystems and wildlife habitat as sensitive environmental receptors, it does not identify regulated vegetation that intersects a wetland or watercourse. These are identified as MSES in the Environmental Offsets Regulation as prescribed environmental matters and should therefore be identified in Section 10.4.2. Impact assessment methodology for MSES - It is identified that significant impact assessment for MSES to inform potential offsets will be guided by the Queensland Environmental Offsets Policy (QEOP) Significant Residual Impact (SRI) Guidelines (DEHP 2014) However for clearing that is not exempt, significant impact assessment for MSES under the Planning Act 2016 should rather be guided by the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014).	Amend EIS to include regulated vegetation that intersects a wetland or watercourse in the list of sensitive environmental receptors (that are Environmental Offsets Regulation 2014 prescribed environmental matters) in Section 10.4.2. Include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. The DSDILGP's SRI guideline is located at: dsdmipprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	The discussion of results and the significant residual impact assessment for MSES have been updated in Chapter 11: Flora and Fauna. The discussion and significant residual impact assessment include addressing regulated vegetation that intersect wetlands and watercourses. Chapter 11: Flora and Fauna provides area calculations for all MSES occurring within the Project footprint, including a prescribed RE within a defined distance from the defining banks of a relevant watercourse or relevant drainage feature, prescribed RE that intersects with a <i>Vegetation Management Act 1997</i> (Qld) wetland and essential habitat. Proposed mitigation measures and a quantification of residual significant impacts relating to MSES are outlined in Chapter 11: Flora and Fauna. Significant residual impacts for MSES were assessed against the Significant Residual Impact Guideline for matters of State environmental significance and prescribed activities assessable under the Sustainable Planning Act 2009 (Qld) and the <i>Queensland Environmental Offsets Policy</i> (DSDIP, 2014) as detailed in Chapter 11: Flora and Fauna.	Chapter 11: Flora and Fauna Section 11.3.6 Table 11-20
149	149.0180	State Agency	Flora and Fauna	Terrestrial flora	Amend Section 10.5.3.2 to identify that Category X areas on State land tenures is assessable unless an exemption or ADVCC applies. Amend Table 10.6 to identify any impacted category X areas on State land tenures. Amend Table 10.7 to identify any impacted category X areas on State land tenures AND that are located a defined distance from a VMA watercourse or wetland. Of the impacted vegetation identified in both tables 10.6 and 10.7 include a column detailing the area of impacted vegetation that may be exempt and associated exemption provisions thought to apply. Amend Table 10.8 to identify the preclearing regional ecosystem of any impacted category X areas on State land.	Vegetation communities - Section 10.5.3.2 suggests that clearing of category X areas is generally exempt. However, clearing of category X areas on State land is assessable unless done under an exemption or an ADVCC. Tables 10.6 Extent of category B, C, R areas of regulated vegetation within the impact assessment area and Project footprint; and 10.7 Extent of regulated vegetation located a defined distance from a watercourse or wetland within the impact assessment area and Project footprint. Tables 10.6 and 10.7 refer only to Category A, B, C and R areas. Category X areas on State land tenures should be identified as well as any exemptions that may apply. Table 10.8 Descriptions of Regional Ecosystems (category and C regulated vegetation) within the impact assessment area - Table 10.8 describes the mapped REs within the impact area. For assessable category X areas, the preclearing regional ecosystem should be identified in this table.	All Regional Ecosystems within the Project footprint have been ground truthed as seen in Appendix L: Terrestrial and Aquatic Ecology Technical Report and has been incorporated into the impact assessment for the revised draft EIS. Category "X" areas (i.e. Non-remnant areas) under the Vegetation Management Act 1999 (VM Act) is defined as vegetation that is generally exempt from requirements under vegetation management laws (Chapter 11: Flora and Fauna). This type of vegetation has typically that has been subject to previous clearing for agriculture, grazing, mining, industry and transport (Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC considers that Inland Rail is Government Supported Transport Infrastructure under the Planning Act 2016. Accordingly, Inland Rail meets the requirements for government supported transport infrastructure for the Planning Regulation. Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the Planning Act 2016 because: <ul style="list-style-type: none"> infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. Chapter 3: Legislation and Project Approvals Section 3.21 outlines that the Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project. Under Schedule 21, Part 1, Item 14 of the Planning Regulation, the following clearing work is exempt clearing work for which a development permit is not required. Clearing vegetation for the construction or maintenance of infrastructure stated in Schedule 5, if: <ul style="list-style-type: none"> the clearing is on a designated premises, or the infrastructure is government supported transport infrastructure. The Project is Government Supported Infrastructure as per requirements of the Planning Regulation and therefore is exempt from requirements of the VM Act. Therefore exemptions from the VM Act have been identified. The revised draft EIS has been updated to reflect DoR and other State agency comments.	Chapter 3: Legislation and Project Approvals Section 3.21 Section 3.421 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report
149	149.0190	State Agency	Flora and Fauna	Aquatic flora	Section 10.7 states that sensitive environmental receptors for the project are those defined as 'prescribed environmental matters' in Part 2, Section 5 of the Environmental Offsets Regulation 2014. However, while Section 10.7 identifies regional ecosystems and wildlife habitat/essential habitat as sensitive environmental receptors, it does not identify regulated vegetation that intersects a wetland or watercourse. These are identified as MSES in the Environmental Offsets Regulation as 'prescribed environmental matters' and should therefore be identified in Section 10.4.2.	Amend EIS to include regulated vegetation that intersects a wetland or watercourse in the list of sensitive environmental receptors in Section 10.7.	Sensitive environmental receptors for the Project are those defined as "prescribed environmental matters" in Part 2, Section 5 of the <i>Environmental Offsets Regulation 2014</i> . However, while it is identified regional ecosystems and wildlife habitat/essential habitat as sensitive environmental receptors, it does not identify regulated vegetation that intersects a wetland or watercourse. These are identified as MSES in the Environmental Offsets Regulation as "prescribed environmental matters".	Chapter 11: Flora and Fauna Section 11.4 Table 11-19
149	149.0200	State Agency	Flora and Fauna	Aquatic fauna	Table 10.35 does not include area calculations for regulated vegetation associated with a wetland or watercourse. The Table does include those for Essential Habitat, and for consistency should include data for VMA wetland and watercourses within the Project area. Table 10.38 does not include information related to regulated vegetation associated with a watercourse or wetland. The Table does include those for Essential Habitat and for consistency should include information for VMA wetland and watercourses within the Project area.	Amend Table 10.35 and Table 10.38 to include area calculations for regulated vegetation that is associated with a VMA wetland or watercourse.	Chapter 11: Flora and Fauna provides area calculations for all MSES occurring within the Project footprint, including a prescribed RE within a defined distance from the defining banks of a relevant watercourse or relevant drainage feature, prescribed RE that intersects with a <i>Vegetation Management Act 1997</i> (Qld) wetland and essential habitat. Proposed mitigation measures and a quantification of residual significant impacts relating to MSES are outlined in Chapter 11: Flora and Fauna.	Chapter 11: Flora and Fauna Section 11.5 Section 11.7
149	149.0210	State Agency	Flora and Fauna	Terrestrial flora	Amend EIS to clarify that environmental offsets imposed under the Planning Act 2016 for a MSES must use the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014). Update Table 10.41 if relevant following assessment of SRI using DSDILGP's SRI Guideline. For Noting: The DSDILGP's SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dsdmipprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	Section 10.12.3 does not clarify that the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) is used to assist in deciding whether or a not a prescribed activity will or is likely to have a significant residual impact on a MSES for offsets imposed under the Planning Act 2016. A revised SRI assessment should be undertaken for MSES matters using DSDILGP's SRI guideline and the calculations in Table 10.41 updated if relevant.	Revised draft EIS Chapter 11: Flora and Fauna has been updated to include both guidelines and the use of the relevant guideline as appropriate. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been amended to provide further clarification on the use of the relevant SRI guideline.	Chapter 11: Flora and Fauna Section 11.3 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
149	149.0220	State Agency	Flora and Fauna	Terrestrial flora	Section 10.13 does not include a correlation between matter of MNES and MSES to enable an understanding or assessment of impacts remaining post MNES being addressed/offset. Section 10.13.2 does not clarify whether DSDILGP's SRI Guideline was used to assess and quantify the SRI impacts outlined in Table 10.43. The SRI assessment and quantification should be repeated using the DSDILGP's SRI Guideline and the values in Table 10.43 revised if relevant, including any SRI impacts for wetlands.	Amend Section 10.13 to include a Section that details and quantifies the matters and area (hectares) of overlap between MNES and MSES matters and offset requirements. Identify that environmental offsets imposed under the Planning Act 2016 for MSES must use the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014). Update Table 10.43 if relevant following assessment of SRI using DSDILGP's SRI Guideline. For Noting: The DSDILGP's SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dsdmipprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	Appendix L: Terrestrial and Aquatic Ecology Technical Report includes assessment of impacts in accordance with the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the <i>Planning Act 2016</i> (Qld). Chapter 11: Flora and Fauna, also provides discussion on significant residual impact assessment. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been amended to provide further clarification on the use of the relevant SRI guideline. Chapter 11: Flora and Fauna, summarises the quantification of significant residual impacts to MNES and MSES and provides discussion on how ARTC proposes to provide its offset obligations for the Project.	Chapter 11: Flora and Fauna Section 11.3 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 3 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0230	State Agency	Flora and Fauna		Appendix J Section 1.2.3 states an initial assessment of Significant Residual Impacts on prescribed matters have been assessed against the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline and the Department of the Environment, Water, Heritage, and the Arts (Department of the Environment, 2013) Significant Impact Guidelines 1.1—Matters of National Environmental Significance. However, an assessment of SRI impacts should also be assessed against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014), because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation 2017 as government supported transport infrastructure, and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016.	Amend Section 1.2.3 to include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For Noting: The DSDILGPs SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dspmiprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	Appendix L: Terrestrial and Aquatic Ecology Technical Report includes assessment of impacts in accordance with the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the <i>Planning Act 2016</i> (Qld). Chapter 11: Flora and Fauna, also provides discussion on significant residual impact assessment. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been amended to provide further clarification on the use of the relevant SRI guideline. Chapter 11: Flora and Fauna, summarises the quantification of significant residual impacts to MNES and MSES and provides discussion on how ARTC proposes to provide its offset obligations for the Project.	Chapter 11: Flora and Fauna Section 11.3 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 3 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
149	149.0240	State Agency	Flora and Fauna	Terrestrial flora	Amend Table 2.1 to include the following: <ul style="list-style-type: none"> Vegetation Management Act 1999o Identify that clearing native vegetation in category X areas on State land tenures are also regulated and assessable. Clarification that clearing vegetation for the development will require a development approval relative to the VMA unless the clearing is exempt. Identify that environmental offsets may also be imposed under the Planning Act 2016, with referral to the DSDILGP's SRI guideline located at: dspmiprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf. <p>For Noting: To confirm application of exemptions, and requirements for any approvals and permits under the State's vegetation management framework, the proponent is advised to contact the State Assessment Referral Agency (SARA) in the DSDILGP: planning.dsdmp.qld.gov.au/planning/resources/contact-us.</p>	Appendix J Table 2.1 – State – Vegetation Management Act 1999Applicability of the VMA: <ul style="list-style-type: none"> Statements do not identify that native vegetation mapped as a category X area on State land tenures including Road, Trust land, USL, is also regulated. Statements propose that clearing within the gazetted project footprint will be exempt clearing for the construction of government supported transport infrastructure under Schedule 21 of the Planning Regulation 2017. <p>It is the Department of Resources understanding that the State is yet to confirm if the project is government supported transport infrastructure. Until this is confirmed, the related vegetation clearing exemption does not apply. This should be more clearly reflected and articulated throughout the EIS. In addition, some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016. Table 2.1 does not identify that environmental offsets may be imposed under the Planning Act 2016 (PA) e.g., for Vegetation Management Act 1999 matters. The Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) is used to assist in deciding whether or a not a prescribed activity will or is likely to have a significant residual impact on a MSES for which an offset is required under the Planning Act 2016.</p>	All Regional Ecosystems within the Project footprint have been ground truthed as seen in Appendix L: Terrestrial and Aquatic Ecology Technical Report and has been incorporated into the impact assessment for the revised draft EIS. Category "X" areas (i.e. Non-remnant areas) under the Vegetation Management Act 1999 (VM Act) is defined as vegetation that is generally exempt from requirements under vegetation management laws (Chapter 11: Flora and Fauna. This type of vegetation has typically that has been subject to previous clearing for agriculture, grazing, mining, industry and transport (Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC considers that Inland Rail is Government Supported Transport Infrastructure under the Planning Act 2016. Accordingly, Inland Rail meets the requirements for government supported transport infrastructure for the Planning Regulation. Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the Planning Act 2016 because: <ul style="list-style-type: none"> it is infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. <p>Chapter 3: Legislation and Project Approvals Section 3.21 outlines that the Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project. Under Schedule 21, Part 1, Item 14 of the Planning Regulation, the following clearing work is exempt clearing work for which a development permit is not required. <ul style="list-style-type: none"> the clearing is on a designated premises, or the infrastructure is government supported transport infrastructure. <p>The Project is Government Supported Infrastructure as per requirements of the Planning Regulation and therefore is exempt from requirements of the VM Act. Therefore exemptions from the VM Act have been identified. The revised draft EIS has been updated to reflect DoR and other State agency comments.</p></p>	Chapter 3: Legislation and Project Approvals Section 3.21 Section 3.421 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report
149	149.0250	State Agency	Flora and Fauna	Terrestrial flora	Appendix J Section 3.44 states that the Significant Residual Impacts on prescribed matters have been assessed against the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline, and the Department of the Environment, Water, Heritage, and the Arts (Department of the Environment, 2013) Significant Impact Guidelines 1.1—Matters of National Environmental Significance. However, an assessment of SRI impacts should also be assessed against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014), because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation as government supported transport infrastructure, and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016.	Amend Section 3.44 to include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For Noting: The DSDILGPs SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dspmiprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	Appendix L: Terrestrial and Aquatic Ecology Technical Report includes assessment of impacts in accordance with the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the <i>Planning Act 2016</i> (Qld). Chapter 11: Flora and Fauna, also provides discussion on significant residual impact assessment. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been amended to provide further clarification on the use of the relevant SRI guideline. Chapter 11: Flora and Fauna, summarises the quantification of significant residual impacts to MNES and MSES and provides discussion on how ARTC proposes to provide its offset obligations for the Project.	Chapter 11: Flora and Fauna Section 11.3 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
149	149.0260	State Agency	Flora and Fauna	Terrestrial flora	Amend Section 4.5.18 to note that category X areas on State land tenures is assessable unless an exemption applies. Amend Table 4.19 to include quantification of regulated and assessable category X areas within the Project area. Amend Table 4.21 to include quantification, if any, of regulated and assessable category X areas on State land tenures and that are associated with a VMA watercourse/wetland that are impacted by the Project. Amend Table 4.22 to include a description of the regional ecosystem types of regulated and assessable category X areas that are impacted by the Project.	Appendix J Section 4.5.18 does not identify that category X areas on State land tenures including Road, Trust land, Unallocated State Land, is assessable unless an exemption applies. This should be noted throughout Section 4.5.18. Until an exemption for all aspects of the Project is confirmed, regulated category X areas (i.e., category X areas on State land tenures) are assessable. Table 4.19 does not quantify the extent of regulated category X areas within the project area. Table 4.21 does not provide clarity regarding whether impacted assessable category X areas associated with a watercourse/wetland are included in the calculations. Table 4.21 infers all category X areas are exempt. Table 4.22 does not quantify the extent of regulated category X areas that are impacted by the Project. This would include Road, Trust land, Unallocated State Land etc. Unallocated State Land may include several watercourses that are impacted by the Project – keeping in mind that VMA watercourses are not necessarily a watercourse under the Water Act. Although some regulated category X areas may not be remnant, the on-ground vegetation may be characteristic of a regional ecosystem.	All Regional Ecosystems within the Project footprint have been ground truthed as seen in Appendix L: Terrestrial and Aquatic Ecology Technical Report and has been incorporated into the impact assessment for the revised draft EIS. Category "X" areas (i.e. Non-remnant areas) under the Vegetation Management Act 1999 (VM Act) is defined as vegetation that is generally exempt from requirements under vegetation management laws (Chapter 11: Flora and Fauna. This type of vegetation has typically that has been subject to previous clearing for agriculture, grazing, mining, industry and transport (Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC considers that Inland Rail is Government Supported Transport Infrastructure under the Planning Act 2016. Accordingly, Inland Rail meets the requirements for government supported transport infrastructure for the Planning Regulation. Chapter 3: Legislation and Project Approvals Process Section 3.421 has been revised to reflect that the Project is Government Supported Transport Infrastructure under the Planning Act 2016 because: <ul style="list-style-type: none"> it is infrastructure for transport, being rail transport infrastructure it is infrastructure for transport that is for public use and it is funded partly by the Commonwealth Government. <p>Chapter 3: Legislation and Project Approvals Section 3.21 outlines that the Coordinator-General may impose conditions, stated conditions that must be imposed on subsequent development approvals and make recommendations for other approvals required by the Project. Under Schedule 21, Part 1, Item 14 of the Planning Regulation, the following clearing work is exempt clearing work for which a development permit is not required. <ul style="list-style-type: none"> the clearing is on a designated premises, or the infrastructure is government supported transport infrastructure. <p>The Project is Government Supported Infrastructure as per requirements of the Planning Regulation and therefore is exempt from requirements of the VM Act. Therefore exemptions from the VM Act have been identified. The revised draft EIS has been updated to reflect DoR and other State agency comments.</p></p>	Chapter 3: Legislation and Project Approvals Section 3.21 Section 3.421 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report
149	149.0270	State Agency	Flora and Fauna	Aquatic flora	Table 5.11 does not include area calculations for regulated vegetation associated with a VMA wetland or watercourse. Table 5.6 does not include information related to regulated vegetation associated with a VMA wetland or watercourse. Section 5.3.4 – there is ambiguity surrounding the role of DSDILGP's SRI guidelines in assessment of the project's SRI on MSES. This Section initially states that SRI for MSES is assessed against the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline. It only later refers to the DSDILGP's Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016, and in a context that does not clearly set out when it must be used. It is important to delineate when either the DES's SRI guideline or DSDILGP's SRI guideline applies. This is because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation as 'government supported transport infrastructure', and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016. The DSDILGP's SRI guideline must be used for any clearing that is assessable under the Planning Act 2016.	Amend Table 5.11 to include area calculations for regulated vegetation that is associated with a VMA wetland and watercourse. Amend Table 5.12 to include information for regulated vegetation that is associated with a VMA wetland or watercourse. Amended Section 5.3.4 so there is no ambiguity surrounding the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For Noting: The DSDILGPs SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dspmiprd.blob.core.windows.net/general/dsdip-significant-residual-impact-guideline.pdf .	The discussion of results and the significant residual impact assessment for MSES have been updated in the revised draft EIS in Chapter 11: Flora and Fauna. The discussion and significant residual impact assessment include addressing regulated vegetation that intersect wetlands and watercourses. Chapter 11: Flora and Fauna, details the areas (ha) of MSES within the Project footprint (including regulated vegetation that intersects wetlands and watercourses) and the results of the significant residual impact assessments for MSES are provided also provided. Significant residual impacts for MSES were assessed against the Significant Residual Impact Guideline for matters of state environmental significance and prescribed activities assessable under the <i>Sustainable Planning Act 2009</i> (Qld) and the <i>Queensland Environmental Offsets Policy</i> (DSDIP, 2014) as detailed in Chapter 11: Flora and Fauna.	Chapter 11: Flora and Fauna Section 11.7
149	149.0280	State Agency	Flora and Fauna	Aquatic fauna	Appendix J Section 5.4 does not include a correlation between MNES and MSES to enable an understanding or assessment of impacts remaining post MNES being addressed/offset. Section 5.4.2 identifies potential significant residual impacts of the project on prescribed matters, including remnant vegetation intersecting a wetland. However, VMA wetlands are not identified in Table 5.22. Section 5.4.3 defines the scope of the Environmental Offset Delivery Plan including quantifying the SRI of the project on MSES and MNES and detailing the offsets to address the SRIs. The Environmental Offset Delivery Plan should also detail the overlap of MNES and MSES and how a MNES-offset will also deliver an appropriate offset for the MSES prescribed matter.	Amend Section 5.4 to include a Section that details and quantifies the matters and area (hectares) of overlap between MNES and MSES and offset requirements. Amend Table 5.22 to include wetlands under the Regulated Vegetation section. Amend Section 5.4.3 to identify the scope of the Environmental Offset Delivery Plan will also include a breakdown of the overlap of MNES and MSES and will detail how a MNES offset will also deliver an appropriate offset for the MSES prescribed matter.	Further field assessments have been undertaken as part of the revised draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping. This additional information was then used to update and refine the Impact Assessments for significant residual impacts to MNES and MSES as provided in Chapter 11: Flora and Fauna. The detailed assessments are provided in Appendix L: Terrestrial and Aquatic Ecology Technical Report for MSES and Appendix O: Matters of National Environmental Significance Report for MNES. MNES, being threatened species and communities under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth) as the controlling provision for the Project, have been assessed and documented in Appendix O: Matters of National Environmental Significance Report. Where there is overlap between MNES and MSES, they are addressed in detail in the MNES report and cross referenced in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The offset strategy has been amended to clarify the overlap of MNES/MSES. ARTC intend to deliver offsets in line with the <i>Environmental Offsets Act</i> (Qld), which outlines that, if the same or substantially the same impact or matter is assessed under the EPBC Act then there can be no offset condition imposed at the State level, regardless of whether an offset is required under the EPBC Act. As such, there is no requirement to demonstrate how the MNES offset will offset MSES values. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie informs the development of offset delivery components including an Environmental Offset Delivery Plan and Offset Area Management Plans. Further detailed information is found in Table 2-2 and Table 3-2 of Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie.	Chapter 11: Flora and Fauna Section 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Report Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie Section 3.2 Table 2-2 Table 3-2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0290	State Agency	Flora and Fauna	Offsets	Appendix N in general does not include a correlation between matter of MNES and MSES to enable an understanding or assessment of impacts remaining post MNES being addressed/offset. Section 1.3 defines the scope of the Environmental Offset Delivery Plan including quantifying the SRI of the project on MSES and MNES and detailing the offsets to address the SRIs. The Environmental Offset Delivery Plan should also detail the overlap of MNES and MSES and how a MNES-offset will also deliver an appropriate offset for the MSES prescribed matter. Section 2.2 identifies the framework for the Queensland Environmental offsets including the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline. However, for clearing that is not exempt under the Planning Act 2016, it is DSDILGP's SRI guideline that must be used. A note of this should be made in this section. Section 2.2.2 – for Old Environmental Offsets Policy - This Section states that the most applicable SRI guideline is the Department of Environment and Heritage Protection (2014) Significant Residual Impact Guideline. However, for clearing that is not exempt under the Planning Act 2016, it is DSDILGP's SRI guideline that must be used. A note of this should be made in this section. Section 3 - Table 2 and 3 offer a separate breakdown of the MNES and MSES. However, neither identify those overlapping MSES. A correlation between MNES and MSES must be provided to enable an understanding and assessment of the impacts remaining post-MNES offsets. Section 4.1 identifies that the offset requirements for MSES will be assessed against the QEOP's SRI Guideline. However, an assessment of SRIs should also be assessed against the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016(Department of State Development, Infrastructure, Local Government and Planning, December 2014), because clearing for the Project has yet to be confirmed as exempt under Schedule 21 of the Planning Regulation as 'government supported transport infrastructure', and some clearing for the Project outside of the gazetted area may be assessable under the Planning Act 2016.	Amend Section 2.2 and 2.2.2 to identify that DSDILGPs SRI Guideline must be used for clearing that is not exempt under the Planning Act 2016. Amend Section 3 to include a Table or other presentation format that details and quantifies the matters and area of overlap between MNES and MSES matters and offset requirements. Amend Section 4.1 to include information in relation to the use of the Significant Residual Impact Guideline for Matters of State Environmental Significance and Prescribed Activities assessable under the Planning Act 2016 (Department of State Development, Infrastructure, Local Government and Planning, December 2014) for clearing that may not be exempt under Schedule 21 of the Planning Regulation 2017. For Noting: The DSDILGPs SRI guideline for prescribed matters made assessable under the Planning Act 2016 can be found at: dsdmipprd_blob_core_windows_net/general/dsdip-significant-residual-impact-guideline.pdf .	The revised draft EIS has been updated and significant residual impact assessment for matters of state environmental significance has been incorporated into Appendix L: Terrestrial and Aquatic Ecology Technical Report. Appendix L: Terrestrial and Aquatic Ecology Technical Report, Section 7.1 includes assessment of impacts in accordance with the Significant Residual Impact Guideline for Matters of State Environmental Significance and Policy (v1.16). Table 71 of Appendix L: Terrestrial and Aquatic Ecology Technical Report identifies each respective MNES/MSES and its relative Commonwealth and State Government conservation listing overlap as well as identifying if the matter was assessed as a MNES or MSES. As outlined in Table 21 of Appendix L: Terrestrial and Aquatic Ecology Technical Report, the clearing of vegetation regulated under the VM Act is considered to be eligible for exemption under Schedule 21 of the Planning Regulation (i.e. GSTI) and does not require a development approval. This includes clearing for early works and pre-construction activities, including the establishment of laydown areas and access roads as described in Chapter 5: Project Description (see Chapter 3: Legislation and Project Approvals Process). As such, it has been determined that the Significant Residual Impact Guideline for Matters of State Environmental Significance (MSES) and prescribed activities assessable under the Nature Conservation Act 1992 (DEHP, 2014) (SRI Guidelines) relevantly applies to the assessment of MSES impacts. Section 8 of Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie (EODS) outlines those overlapping MNES/MSES and therefore identifies those MSES that will be assessed under the Queensland Environmental Offsets Policy (v1.16)	Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 7.1 Table 21 Table 71 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie Section 8
149	149.0300	State Agency	Land Use and Tenure		The draft EIS identifies that native title may continue over ten properties including Reserve and State land tenure. However, it is also possible for Native Title rights and interests to exist on the State Lease Land identified in Table 14 Tenure within the Impact Assessment Area page 28, for example where there are leases for low impact uses such as grazing.	Within this Section it should be stated that a detailed native title assessment for all identified parcels within the footprint of the development should be carried out in accordance with the states native title work procedures.	This issue is noted. A detailed Native Title assessment has been undertaken for the Project, in accordance with the State's native title work procedures. The revised draft EIS has been amended to state that a detailed native title assessment has been carried out, and the results have been outlined in Chapter 8: Land Use and Tenure. ARTC is in the process of engaging with the relevant parties where native title has not been extinguished on land within the Project footprint regarding the process and approach to the surrender or acquisition of the native title rights and interests in question.	Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.2 Figure 8.4 Figure 8.8
149	149.0310	State Agency	Land Use and Tenure		Native Title is mentioned throughout Chapter 7, for example: ▶ Section 7.5.1.4 Native Title, page 7 -36 contains information regarding Native Title Claims. ▶ Section 7.6.2 Native Title, page 7 – 162 discusses what sections of the Native Title Act may apply to the project and the effect it has on the Native Title status of the land. ▶ Section 7.7.2.1 Change in land tenure and loss of property, Native Title, page 7 – 180, mentions ILUA's where Native Title has not been extinguished. No information has been included which confirms the requirement to identify existing and potential native title rights which can only occur from a detailed native title assessment being performed on all impacted properties identified in Appendix F.	Provide a detailed native title assessment for the properties identified in Appendix F Impacted Properties, so that the native title status of each impacted property is known. Please use the native title work procedures to assess native title and comply with native title requirements.	This issue is noted. A detailed Native Title assessment has been undertaken for the Project, in accordance with the State's native title work procedures. The revised draft EIS has been amended to state that a detailed native title assessment has been carried out, and the results have been outlined in Chapter 8: Land Use and Tenure. ARTC is in the process of engaging with the relevant parties where native title has not been extinguished on land within the Project footprint regarding the process and approach to the surrender or acquisition of the native title rights and interests in question.	Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.2 Figure 8.4 Figure 8.8
149	149.0320	State Agency	Land Use and Tenure		These parts of the draft EIS (Section 15.8.1.1, Table 15.14, Table 15.29) identify that native title may continue over ten properties including Reserve and State land tenure. However, it is also possible for Native Title rights and interests to exist on other land included in Appendix F Impacted Properties. For this reason, all impacted properties should have native title assessed in accordance with the native title work procedures.	Amend these sections of the draft EIS to state that a detailed native title assessment will be carried out for all properties within the projects footprint in accordance with the native title work procedures.	This issue is noted. A detailed Native Title assessment has been undertaken for the Project, in accordance with the State's native title work procedures. The revised draft EIS has been amended to state that a detailed native title assessment has been carried out, and the results have been outlined in Chapter 8: Land Use and Tenure. ARTC is in the process of engaging with the relevant parties where native title has not been extinguished on land within the Project footprint regarding the process and approach to the surrender or acquisition of the native title rights and interests in question.	Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.2 Figure 8.4 Figure 8.8 Appendix E: Consultation Report
149	149.0330	State Agency	Land Resources		Within Chapter 8 it refers to on two occasions Volume 3 Design Drawings. No such reference material could be found in the draft EIS common material.	If Volume 3 Design Drawings has not been provided as part of the common material within this draft EIS, please remove reference to it in Chapter 8 and any other chapters/appendices provided as part of this draft EIS. If the correct reference is now Design Drawing Part 1 and Design Drawings Part 2 articulate this in Chapter 8 and in other relevant parts of the draft EIS.	Design drawings previously attached to the draft EIS as Volume 3 have since been revised and updated according to recent fieldwork and revised studies. These are now attached to the revised draft EIS as Appendix B1: Design Drawings, which is supported by Appendix I: EMR Search Certificates and Soil Laboratory Certificates. The reference has been updated throughout the revised draft EIS.	Appendix B1: Design Drawings Appendix I: EMR Search Certificates and Soil Laboratory Certificates
149	149.0340	State Agency	Land Resources	Mitigation measures	Soil Conservation Guidelines for Queensland, provides recommended maximum velocities for consolidated, bare and vegetated channels: Chapter 9, Waterways, Section 9.3, Design Velocity, Table 9.1, p.910. Table 8.27 fails to include reference to the Soil Conservation Guidelines for Queensland (SCGQ). The following has been included in Table 8.28: The Soil Management Sub-plan will include erosion and sediment controls as a component of the CEMP. The erosion and sediment control measures will be developed by a certified practitioner in erosion and sediment control, in accordance with the Best Practice Erosion and Sediment Control (ICEA, 2008) and with reference to Soil Conservation Guidelines for Queensland (DSIT), 2015 and will be implemented during construction of the Project While the Soil Conservation Guidelines for Queensland are mentioned in Table 8.28, how the guidelines will be applied is unknown. For example, detail has not been provided demonstrating how each waterway/channel/drain along the entire alignment has been assessed and will adhere to the recommended maximum velocities for consolidated, bare, and vegetated channels that is detailed in the SCGQ, Chapter 9, Waterways, Section 9.3, Design Velocity, Table 9.1, p.910.	Amend Chapter 8, Section 8.7 Mitigation Measures to include an assessment of each channel/waterway/drain in relation to the Soil Conservation Guidelines for Queensland, Table 9.1. In doing this demonstrate that each channel/waterway/drain will comply with the recommended maximum velocities depending on the expected channel conditions. To enable this assessment and understand the conditions appropriate survey of soil type, gradient, vegetation species/cover and scour protection features is required. Recommended Condition - It is recommended the OCG ensure all erosion and sediment control mitigation measures as part of the entire project occur in accordance with the Soil Conservation Guidelines for Queensland while also fulfilling requirements of Department of Transport and Main Roads (DTMR) regarding scour protection.	Assessment of Project impacts on channels/waterways/diversions has been included in Appendix H: Geomorphology Report, which includes an assessment of risk to the existing geomorphic conditions due to the Project based on site specific geomorphic and hydraulic data. Assessment of constructed channels/drains in relation to the Soil Conservation Guidelines for Queensland (2015) Table 9.1 Soil Unit Erosion Threshold Velocities (ETVs) have been derived by SGM (2022) (Appendix T2: Hydrology and Flooding Technical Report - Volume 2) for use outside of watercourses. These are applicable for use for: ▶ application to new drainage features that discharge to bare soils, i.e. where sheet flow is concentrated by new site drainage, and discharged to a new discharge location ▶ application to the design of culverts that do not discharge to watercourses, and ▶ constructed channels. Site Erosion threshold velocities have been assessed as part of the geomorphic risk assessment for high risk sites where this information is required (e.g., where the sites are high risk due to increases in flow velocity). These have been established from a combination of laboratory data, existing case hydraulic data, site mapping and site-specific assessment of geomorphic conditions and processes (refer to Section 3.3.2 of Appendix H: Geomorphology Report). These ETVs were undertaken to confirm the risk of erosion, e.g., the site may have an increased design flow but the channel material may have a higher ETV than the design increase and so erosion due to the Project would be unlikely to occur (Section 5.2.1 of Appendix H: Geomorphology Report). The geomorphology risk assessment identified nine initial case high-risk sites, one of which was high-risk due to increased velocity (NC 11). The other eight sites were identified as high risk due to either reductions in flow velocity or the location of the design infrastructure. For natural ground surfaces, flood-impact objective compliance has been assessed against a minimum ETV of 0.5m/s (as per with the FIO requirements), which is commensurate with bare ground conditions, and in line with the findings of the SGM (2022) ETV soil unit assessments for bare ground conditions. As the SGM report is more specific to the Project footprint, the values in that report have been used rather than the maximum velocities recommended in Table 9-1 of Chapter 9: Land Resources. All FIO exceedances are shown and discussed within the flood mapping and reporting respectively, noting the revised reference design has been optimised substantially (but not fully) to mitigate flood impacts. As is normal for Projects of this scale/nature, the design will continue to be refined (i.e. as it progresses to Detailed Design) to mitigate residual flood impacts. Information has been provided in Chapter 14: Flooding and Geomorphology Section 14.9 and the Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 outlining the mitigation philosophy/process, along with mitigation measures/strategies to address any residual flood impacts (which, in the context of this response, would relate to flow velocity). The Erosive Threshold Velocities (ETVs) in Table 9-1 of Chapter 9: Land Resources (Soil Conservation Guidelines for Queensland, 2015) have no link with the existing case conditions and are in direct conflict with allowing existing case fluvial geomorphic processes to continue for the following reasons: ▶ Fluvial systems are dynamic and natural fluvial processes include certain types of erosion. ▶ Imposing bare earth ETV's will reduce flow velocity from the existing case and will impact the sediment transport capacity of Project watercourses negatively. ▶ A reduction in the ability of a watercourse to transport sediment can lead to channel bed aggradation, change in channel and landform type and reduced/loss of transport of woody debris. Woody debris has significant ecological importance as it has a role in carbon budgets and nutrient cycling, is a source of energy for aquatic ecosystems, provides habitat for terrestrial and aquatic organisms, and the presence of woody debris on gully floors can also reduce erosion. ▶ Areas of high flow velocity do not necessarily correspond to areas of erosion on the ground. Site observations of existing geomorphic processes, such as locations and extents of erosion and deposition provide the best information on potential future impacts and site erosion potential.	Chapter 9: Land Resources Table 9-1 Chapter 14: Flooding & Geomorphology Section 14.9 Appendix H: Geomorphology Assessment Section 3.3.2 Section 5.2.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
149	149.0350	State Agency	Surface Water	Scour protection	Due to lack of detail provided in the Draft EIS B2G, it is not known if scour protection measures will satisfy state requirements. Therefore, additional scour protection measures may need to be detailed in the EIS, noting they will be subject to further analysis that relies on more detailed investigation of soil types, gradient, vegetation cover, expected velocities etc.	The Department of Resources recommends referring to Department of Transport and Main Roads (DTMR) scour protection guidelines and that this issue be discussed further across all relevant state agencies. The Department of Resources also recommends the OCG be guided by DTMR technical advice in relation to how scour protection measures should be applied across the entire alignment (regardless of if the alignment intersects or runs parallel to DTMR infrastructure). Note, to enable the appropriate application of scour protection mitigation measures in the Draft EIS B2G, further analysis that relies on more detailed investigation of soil types, gradient, vegetation cover, expected velocities etc. is required.	Since the release of the draft EIS a preliminary Erosion Threshold Velocity (ETV) assessment has been undertaken to inform the scour and erosion protection strategy for the Project. The ETV values along the Project for a 50 per cent vegetation cover scenario have been estimated at between 0.9 and 1.2 m/s. An impact assessment was then undertaken against the Flood Impact Objectives (FIO) using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Project footprint. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. Sealed and unsealed surfaces likely to be impacted by a velocity FIO exceedance have been identified and are reported in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2. In addition to initial scour protection requirements identified during the reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design in accordance with Austroads Guide to Road Design Part 5B: Drainage – Open Channels, Culverts and Floodways (Austroads, 2013b) (AGRD). Scour protection measures for culvert outlets have been designed to ensure that the maximum allowable flow velocities in a 1% AEP, as specified in Table 3.1 of AGRD, are not exceeded. The scour protection length and minimum rock size (d50) have been determined from Figure 3.15 and Figure 3.17 in AGRD. All required scour lengths are predicted to fit within the rail corridor.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0360	State Agency	Land Resources	Baseline/background sampling	Department of Resources has previously advised that extra field work, data collection and laboratory analysis is required for the draft EIS to fully meet the TOR requirements (see below comments for further detail). It is recommended that ARTC amend their EIS to make it clear that extra fieldwork, data collection and analysis is required to fully meet the TOR requirements, and this is being undertaken in parallel with the public consultation period and will be submitted for the final EIS. That way, the proponent is upfront in that they are not releasing something they think meets the TOR. The OCG has advised that there is scope in the review process to request additional information after public notification, and to be publicly notified for a second time. Department of Resources would appreciate the opportunity to review the amended EIS.	The Department of Resources would appreciate the opportunity to review an amended Draft EIS containing extra fieldwork, data collection, analysis, and associated mitigation measures for consistency with the TOR requirements. Recommended condition - The OCG should consider placing a condition on the EIS, if suggested updates to the EIS are found to be inadequate. The Department of Resources recommends the following condition for consideration (pending outcomes of an updated EIS): Prior to construction, a soil survey including soil profile descriptions and laboratory analysis must be completed at a scale, site intensity and maximum distance delineated for linear infrastructure in accordance with Tables 1, 2 and 3 of the Guidelines for Soil Survey along Linear Features, and the Australian Soil and Land Resource Survey Field Handbook (Yellow Book). This must be conducted by a suitably skilled and experienced soil and land resource scientist, preferably one with a CPSS accreditation in soil survey. The management units identified in this soil survey are to be formulated to accommodate construction and rehabilitation activities. This must include:- volumes of soil material available for track formation, and treatment and site rehabilitation;- potential salinity, acidity, sodicity and erosion risks/issues and suitable remediation measures.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 3.2, Section 5.0 and Table 5.3. This level of investigation is sufficient to allow determination of the suitability of the soils and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. This enabled the management the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2009), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at a 1:10,000 scale in consultation with DoR. The soil investigation report provides detailed soil profile descriptions and laboratory test results. Findings from the detailed soil investigation has been incorporated into Chapter 9: Land Resources, Section 9.4.2. Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Sections 3.2 and 3.3 also presents mitigation measures for soil units present within the Project footprint.	Chapter 9: Land Resources. Section 9.4.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3 Appendix J: Soil Assessment Report - Section 3.2 Section 5.0 Table 5.3
149	149.0370	State Agency	Land Resources	Baseline/background sampling	The Terms of Reference for 11.88 specifies: 'The assessment of impacts on topography, geology and soils will be in accordance with the Soil Science Guidelines of Australia, Queensland Branch (2015), in conjunction with the DES Information guideline for an environmental impact statement Land and the CSIRO guidelines for surveying soil and land resources and Australian Soil and Land Survey field handbook (refer to Appendix 1). There has been insufficient assessment of the range of soils along the project's corridor. The assessment is not consistent with the requirements of the Soil Science Australia, Queensland Branch (2015). Guidelines for Soil Survey for linear features; and the limited soil survey has not been completed in accordance with the requirements of the Australian Soil and Land Survey, field handbook, and Australian Soil and Land Survey Handbook. Extra field work, data collection and laboratory analysis are required for the draft EIS to fully meet the TOR requirements. The existing description of soils within Chapter 8 Land Resources is not suitable. As advised previously, ARTC continue to misinterpret statements from the Guidelines for Soil Survey along Linear Features. These guidelines do not prescribe or recommend a scale of 1:250 000 for an EIS for a linear feature. In addition, as this linear feature is likely to have a disturbance footprint of around a 100 m width, it would be more logical than not, for the soils along the inland rail corridor to have been described and sampled using the recommendations from the Guidelines for Soil Survey along Linear Features, as was required by the Terms of Reference, not based on a 1:250 000 site density from McKenzie et al 2008 (which actually equates to one site described per square centimetre of map area, or for a larger project area, roughly 16 sites per 100 km ²). For a piece of linear infrastructure, it is illogical to map the landscape at a 1:250 000 scale, which is why the Guidelines for Soil Survey along Linear Features were devised to clarify a scale that is fit for purpose for linear features. It is acknowledged that sites from the Qld Government SALI database have been used to increase the site intensity along the route. This is supported. The main problem however is that the sites are not located proportionately along the route. Instead, there is a cluster of sites south of Kingsthorpe, a cluster of sites around Inglewood, and 2 in between. These sites provide a more reliable indication of the soils and their attributes along the route than the Soil Orders which have been downloaded from ASRIS. Contrary to the claims in the draft EIS, Tables 1, 2 and 3 from the Guidelines for Soil Survey along Linear Features are 'directly applicable' to this EIS design stage. As previously advised, the minimal laboratory analysis included in Appendix G Geotechnical Investigation, does not satisfy the requirements for Table 3, let alone the requirement for 25% of soil survey sites having a detailed profile description. Not one detailed soil profile description has been provided in the EIS (even the sites that have been downloaded from SALI do not include a detailed site description this is a basic requirement of the Guidelines for Soil Survey along Linear Features and the TOR.	At a minimum, extra field work, data collection and laboratory analysis should be completed at a scale, site intensity and maximum distance delineated for linear infrastructure that equates to 1:100 000 (See Table 1, Table 2 and Table 3 of the Guidelines for Soil Survey along Linear Features, and the Australian Soil and Land Resource Survey Field Handbook (Yellow Book)). In line with this guideline, fully described soil profile descriptions and laboratory analysis need to be included, rather than a map downloaded from ASRIS of Soil Order. Work should be completed by a suitably skilled and experienced soil and land resource scientist with a CPSS accreditation in soil survey. The soil descriptions provided do not provide a suitable representation of the soils along the route, or the impacts from disturbing them. The lumping of the soil chemistry results provides limited insight into the soils along the route. Based on this additional survey work, reassessments should be made in relation to:- volumes of soil material available for track formation, and treatment and site rehabilitation;- potential salinity, acidity, sodicity and erosion risks/issues and suitable remediation measures.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 3.2, Section 5.0 and Table 5.3. This level of investigation is sufficient to allow determination of the suitability of the soils and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. This enabled the management the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2009), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at a 1:10,000 scale in consultation with DoR. The soil investigation report provides detailed soil profile descriptions and laboratory test results. Findings from the detailed soil investigation has been incorporated into Chapter 9: Land Resources, Section 9.4.2. Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Sections 3.2 and 3.3 also presents mitigation measures for soil units present within the Project footprint.	Chapter 9: Land Resources. Section 9.4.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3 Appendix J: Soil Assessment Report Section 3.2 Section 5.0 Table 5.3
149	149.0380	State Agency	Land Resources		Lithosols do not feature in the Australian Soil Classification groups.	Amend EIS to clarify that Lithosols do not feature as an Australian Soil Classification group.	The term Lithosols within the EIS has been used as a soil association only in the capacity as a description of soils within the Project alignment. The equivalent soil classification according to the Australian Soil Classification (ASC) has been provided for each soil association/description in Section 4.5 of Appendix J: Soil Assessment Report. In the case of Lithosols, the ASC is considered Rudosols or Tenosols. Refer to Section 5.0 in Appendix J: Soil Assessment Report for the assessment methodology and results from the soil surveys completed.	Appendix J: Soil Assessment Report Section 4.5 Section 5.0
149	149.0390	State Agency	Land Resources	Mitigation measures	Land resources mitigation measures, identifies several plans and subplans that are to be prepared to direct proposed mitigation measures, viz: <ul style="list-style-type: none"> Construction Environmental Management Plan (CEMP) Erosion and Sediment Control Plan (ESCP) Rehabilitation and Reinstatement Plan To be able to advise the Coordinator General on their suitability, the Department of Resources would appreciate the opportunity to assess such plans in view of more detailed land resource/soils data being obtained in subsequent studies proposed for the Project. 	Recommendation: The Coordinator General provide an opportunity for the Department of Resources to review the several EMPs and associated sub-plans related to assessing risks and mitigation measures for the land resources impacted by the Project.	All plans and Plans that support development of the Construction Environmental Management Plan and the Operation Environmental Management Plan will be developed by the Contractor during detailed design. Frameworks for which will guide the development of the plans and Plans is detailed in Chapter 24: Draft Outline Environmental Management Plan. ARTC will continue to work with the Office of the Coordinator-General and the Department of Resources in the Detailed Design stage and during the preparation of the required management plans required for both Construction Works and Operations stages. Appendix J: Soil Assessment Report was completed to a scale of 1:10,000 and has identified soil management units to inform appropriate soil management plans (as described in Appendix J: Soil Assessment Report, Section 1.3). Revised mitigation measures are proposed in Section 3, Part B: Soil Management Plan of Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Section 3. ARTC have committed to consultation with potentially affected landowners and other stakeholders, including proponents of non-Inland Rail Projects that interface with the Project, may result in additional mitigation measures of relevance being identified during the detailed design process.	Chapter 24: Draft Outline Environmental Management Plan Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3 Appendix J: Soil Assessment Report Section 1.3
149	149.0400	State Agency	Land Use and Tenure		The EIS fails to recognise that Petroleum and Gas tenures exist under both the Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923.	Amend Chapter 7, 7.5.1.3 to reference both the Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923 i.e., please include the following edits in red: Several different authorities for petroleum and gas exploration and production activities in Queensland are granted under the Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923.	Chapter 8: Land Use and Tenure, Section 8.2 references the Petroleum and Gas (Production and Safety) Act 2004 as the Project only traverses infrastructure regulated under this Act. Both the Petroleum and Gas (Production and Safety) Act 2004 and the Petroleum Act 1923 (Qld) are noted in Chapter 8: Land Use and Tenure, Section 8.4.2, as having relevance in Queensland. The Petroleum Act 1923 (Qld) continues to regulate petroleum licences granted prior to 1993. All petroleum licences traversed by the Project were granted post 1993.	Chapter 8: Land Use and Tenure Section 8.2 Section 8.4.2
149	149.0410	State Agency	Land Use and Tenure	Directly impacted landowner	Regarding: MDL held where there is a significant mineral occurrence of possible economic potential. The known coal resource area in relation to MDL 299 and the proposed rail alignment is shown on Figure 7.60 Land Use on page 115. The Department is aware that the holder of MDL 299 has conducted additional exploration to establish a JORC Code 2012 resource on the area potentially impacted by the proposed rail alignment. The current holder of MDL 299 has only recently acquired that tenure and they also own the freehold land surrounding the MDL. This coal resource adjoining the current mining lease is a logical extension of the current pits and represents coal that can be mined with an economical strip ratio and transported directly to the power station with existing infrastructure. The resource is understood to represent several years coal supply to the power station that is expected to operate until 2050.	To confirm the currently known extent of the coal resource area the Department suggests contacting the MDL holder regarding the significant mineral occurrence of possible economic potential (Standard: JORC Code 2012 Measured and Indicated status) that has been identified to over part of MDL 299. If warranted after consideration of other factors, future access to the resource could be achieved by moving the rail alignment approximately 1 km to North West over land that is also owned by the MDL 299 Holder.	Chapter 8: Land Use and Tenure, Section 8.6.1 states that where possible, the Project has been aligned to avoid or minimise sterilisation of mineral, coal and petroleum resources; however, in some instances, mineral and petroleum resources could not be avoided by the Project footprint. ARTC will consult with potentially impacted holders of leases, permits or licences over mineral and petroleum resources through the Detailed Design and Pre-Construction Activities and Early Works stages to ensure that the Project and its construction activities are developed in a manner to minimise the extent of such impacts where possible. Chapter 8: Land Use and Tenure, Section 8.5.1 discusses, MDL 299 and MDL 300, located between Inglewood and Millmerran, will be impacted by the Project alignment. The alignment has the capacity to impact on the potential productivity of these leases. Additionally, the Project alignment's impact on the licences will limit the ability of the owners of the lease to profit from any potential minerals located within the licence area. Access to the mineral development licence sites may be impacted as a result of the Project. Consultation with key mineral, coal and petroleum interest stakeholders, including the Commodore Mine and Arrow Energy, has been ongoing since 2018, and ARTC will continue to consult with potentially impacted holders of leases, permits or licences over mineral, coal and petroleum resources through the Detailed Design and Pre-Construction Activities and Early Works stages to ensure the Project and its construction activities are developed in a manner to minimise the extent of such impacts where possible (Appendix E: Consultation Report and Chapter 8: Land Use and Tenure, Section 8.6.1). Where the Project footprint impacts MDL 299 through the severance of the existing lease area, the horizontal alignment of the Project has been optimised to limit the impact on the lease, as well as surrounding land uses. Consultation is currently ongoing with the leaseholder of MDL 299, and minor optimisations of the alignment are being considered to minimise the Project's impact on potentially productive and economically significant mineral deposits. Compensation for the surrender of the lease, and for the acquisition of the land, will be negotiated through DTMR, as the constructing authority, on behalf of ARTC. All landowners who have a lawful claim to the lease and the land will be eligible for compensation (Chapter 8: Land Use and Tenure, Section 8.6.2). Consultation with the Commodore Mine has resulted in a road-over-rail interface to ensure that access to MDL 299 is maintained (proposed road-rail interfaces for the Project, summarised in Chapter 5: Project Description).	Chapter 5: Project Description Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.1 Section 8.6.2 Appendix E: Consultation Report
149	149.0450	State Agency	Land Resources	Mitigation measures	Table 8.28, Aspect: Hazardous material and dangerous goods could be improved by adopting the recommended amendments.	Amend Table 8.28 Land resource mitigation measures, Delivery phase: Construction, Aspect: Hazardous material and dangerous goods by including the following in red: Licensed transporters operating in compliance with Australian Code for the Transport of Dangerous Goods by Road and Rail and Australian Code for the Transport of Explosives by Road and Rail will be used for the transport of dangerous goods and explosives.	Section 9.5.10, Table 9-27 in Chapter 9: Land Resources has been updated with the suggested text as part of the Construction Works stage hazardous material and dangerous goods aspect.	Chapter 9: Land Resources Section 9.5.10 Table 9.30 Table 9-27

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
149	149.0460	State Agency	Hazard and Risk	Construction vibration	Improvements could be made to Section: 19.7.3.3 Explosives use in proximity to the Project (Page 19, 39) by ensuring the suggested solution is incorporated into the text.	It is suggested the following words are incorporated into the Hazard description section: Explosives are hazardous by nature and the incorrect or inappropriate storage, handling, or transport, may result in an unplanned initiation, causing harm to the environment and people. It is suggested the following change is made to the first sentence underpotential impacts Section so to remove reference to blast caps: Blasting explosives (including detonators and boosters) and Security Sensitive Ammonium Nitrate are expected to be required during construction.	Section 21.5.3.3 of Chapter 21: Hazard and risk, explosives hazard description is updated with the wording suggested. Potential impact has been updated with "Blasting explosives (including detonators and boosters) and security sensitive ammonium nitrate are expected to be required during construction to achieve the requisite cutting depth in locations where hard rock is expected to be encountered."	Chapter 21: Hazard and Risk Section 21.5.3.3
149	149.0470	State Agency	Hazard and Risk	Construction vibration	Potential impacts require further assessment. The Potential Impacts paragraph does not satisfactorily describe hazards or requirements for mitigation.	Amend Potential Impacts Section of EIS 19.7.3.3 to include information that better describes the hazards associated with transport, storage, handling and use of explosives during construction and how these hazards are to be mitigated.	Section 21.5.3 of Chapter 21: Hazard and Risk has been updated with detailed description of the hazards associated with transport, storage, handling and use of explosives during construction. Proposed mitigations for these hazards are discussed in Section 21.6 Table 21-16.	Chapter 21: Hazard and Risk Section 21.5.3 Section 21.6 Table 21-16
149	149.0480	State Agency	Hazard and Risk	Construction vibration	Section 19.7.3.3 - Significant concern exists that security sensitive explosives will not be transported on the Inland Rail network.	Discussion required - It is requested that the Coordinator General and ARTC engaged with stakeholders commence immediate discussions with Resource Safety and Health Queensland (RSHQ) Chief Inspector Explosives, Alex Mandel, ph.0436 611 777, email: alex.mandel@rshq.qld.gov.au.	ARTC engaged with Resource Safety and Health Queensland's (RSHQ) Chief Inspector Explosives on 1st July 2022, as requested by this submission. The key issue of discussion was the transportation of security sensitive explosives on the Inland Rail network in Queensland. It was agreed that ARTC engaged with stakeholders and RSHQ will continue to work together to manage safety, storage and security of explosives during construction, as well as environmental issues relating to noise and vibration from blasting. ARTC engagement with stakeholders has resulted in the commitment that the 'Contractor' will engage with RSHQ when planning any blasts that may be required during construction of the Project (Chapter 21: Hazard and Risk, Section 21.5.3 and Appendix E: Consultation Report). ARTC will manage the Border to Gowrie Section of the Inland Rail network to allow for the transportation of dangerous goods and explosives as nominated by the haulage provider and Explosive Competent Authority. There are no tunnels along this Section of the network. Hazardous chemicals (dangerous goods) will likely make up a significant portion of freight because they include many widely used commodities and products. Products potentially categorised as dangerous goods that are likely to be transported include medical supplies and fuel. These goods are commonly moved on all forms of transport (not limited specifically to rail freight). ARTC cannot provide an exhaustive list of the types and quantities of dangerous goods that will be transported on the network (Chapter 5: Project Description, Section 5.8.3).	Chapter 21: Hazard and Risk Section 21.5.3 and Appendix E: Consultation Report
149	149.0490	State Agency	Hazard and Risk	Mitigation measures	Table 19.12 (Page 19, 58), Aspect Storage and handling chemicals, dot point 3 states that: The Hazardous Materials Management Subplan (refer above) will be implemented as a component of the CEMP. Also, within Table 19.12 (Page 19, 58) it mentions that: Chemicals stored and handled as part of construction activities will be managed in accordance with: <ul style="list-style-type: none"> AS 2187.1: 1998 Explosives Storage (Standards Australia, 1998a) AS 2187.2 2006 Explosives Storage, transport and use, Part 2: Use of explosives (Standards Australia, 2006). Australian Code for the Transport of Explosives by Road and Rail (Commonwealth of Australia, 2018b)These references are incorrect. 	In addition to this 3rd dot point, it is recommended that the following be included: The shottfirer or blasting contractor must provide the Hazardous Material Management Sub plan to the Explosive Inspectorate as part of the notification process of blasting activity at least seven days before the proposed blasting activity is carried out. For noting: The sooner the information is supplied to the Inspectorate, the less likely chance of delays with blasting if the Inspectorate has an issue. Within Table 19.12 (Page 19, 59) amend the following to read: Chemicals stored and handled as part of construction activities will be managed in accordance with: AS 2187 Part 2 for explosives use, AS 2187, Part 1: 1998 for explosives storage and Australian Code for the Transport of Explosives by Road and Rail 3rd edition (AEC3 for explosives transport by road and rail).	Section 21.6.2, Table 21-16 of Chapter 21: Hazard and Risk has been updated with the following. "The prescribed shottfirer will submit a safe blast design and Blast Management Plan to the Explosives Inspectorate a minimum of seven days before the scheduled blasting event, for assessment against the requirements under the act and AS 2187.2:2006 Explosives—Storage and use (Standards Australia, 2006b)"	Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16
149	149.0500	State Agency	Hazard and Risk	Mitigation measures	Explosives Section on page 19, 58 refers to an appointed licensed blasting contractor. This is not the description of the licensed person(s) contained in the legislation.	Within explosives Section on page 19, 58 ensure that appropriate legislative terminology is used to describe the licensed person undertaking the blasting works. For example, prescribed shottfirer under schedule 7 of the Explosives Regulation 2017 means: 148 Definitions for division in this division prescribed shottfirer means a. the holder of a shottfirer licence; or(b a person appointed as a shottfirer by: i. for an underground mine, the underground mine manager of the mine; or ii. for another mine, including a quarry the site senior executive for the mine.	Section 21.6.2, Table 21-16 of Chapter 21: Hazard and Risk has been updated with the appropriate terminology. (e.g. "The prescribed shottfirer will submit a safe blast design and Blast Management Plan to the Explosives Inspectorate a minimum of seven days before the scheduled blasting event, for assessment against the requirements under the act and AS 2187.2:2006 Explosives—Storage and use (Standards Australia, 2006b). "	Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16
150	150.0001	Private	Flora and Fauna	Koala	Estimate for koala habitat is incorrect. Submitter has seen at least three koalas on their property.	Nil	Section 3.2 of Appendix L: Terrestrial and Aquatic Ecology Technical Report of the draft EIS released in January 2022, outlined that a review of existing literature and previous studies was conducted which included gathering information on species diversity, abundance and distribution. Field surveys were also conducted to verify the presence of threatened species and ecological communities within the impact assessment area. As noted in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report, a species-specific impact assessment approach has been developed to assess impacts on koala populations for the Queensland sections of the Inland Rail project. This approach guided the identification of koala habitat within the Project footprint, refined habitat mapping, key threats and impacts associated with the Project to inform the significant impact assessment for the species. Mitigation measures and controls have been factored into the Project to reduce the impact on the affected species. ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been reviewed by a range of expert consultants, as well as industry and academia sources. The revised data also takes into consideration information sourced from a variety of database sources (i.e. Atlas of Living, EPBC Act Protected Matters Search Tool, WildNet Records, MSES, TRC and GRC Regional Planning Schemes) to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. As a result and as a part of the revised draft EIS, Appendix M: Draft Koala Management Plan has been developed. The revised draft EIS Appendix M: Draft Koala Management Plan includes mitigation measures and controls that will be factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial Ecology Technical Report. The Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 11.4 Section 11.5 Appendix M: Draft Koala Management Plan Appendix O: Matters of National Environmental Significance Appendix P: Fauna Connectivity Strategy
150	150.0002	Private	Air Quality		Coal dust issues on health and water quality.	nil.	It is not anticipated that coal would be transported along the Border to Gowrie corridor; therefore, coal dust impacts on health and water quality are not expected. However, if coal were transported on the network in future, a Coal Dust Management Plan (CDMP) would be developed in consultation with the relevant regulatory authority. Recommended air quality mitigation measures for the Project are included in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
150	150.0003	Private	Social Impact Assessment	Mitigation measures	Loss of country lifestyle and amenity.	Proponent should be conditioned to provide detail of how they will mitigate the loss of country lifestyle and amenity associated with the excess dust, noise, pollution and loss of privacy.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
150	150.0004	Private	Groundwater	Private groundwater bore/s	Concerns of loss of (or access to) existing groundwater bores as these are the only groundwater bores available to water stock and back up house supply during periods of drought.	ARTC should be conditioned to provide exact detail of this impact to affected landowners in consideration of this and come back for public comment. Property specific agreements need to be transparent not just to the property owner but to the broader community.	Section 15.5.4 and 15.7.4 of Chapter 15: Groundwater have been updated accordingly and proposed potential make-good policy and potential measures are detailed in Table 15.20. ARTC will engage with water users/landowners to determine an appropriate make-good mitigation strategy for bores impacted by the rail alignment on a case-by-case basis. These make-good measures will be determined in consultation with the affected landowners to ensure the agreed make-good solution is commensurate with the level of impact anticipated. Registered bore RN66261 has been identified and will be included in the make-good agreement process.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-20
150	150.0005	Private	Groundwater	Water quality	ARTC are incorrectly reporting to people around the area about the water quality issues at project site that will occur due to impacts of coal dust.	ARTC need guarantee water quality and quantity for all landowners in not adversely effected.	Revised draft Appendix S: Surface Water Quality Technical Report, Section 6.3 states that a flooding and hydrology study has been undertaken detailing potential impacts to flow. There may be small changes to flow during construction if barriers are placed within watercourses during high flow events, however the potential for this to occur is low. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, changes to base-flow and low-flow conditions are not expected (Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2) and will not significantly impede current surface water resource use. The impact to water plans (supply and conveyance) within the disturbance footprint will be minimal due to limited overland flow interference and minimal diversion of defined watercourses. Hydrological modelling has not indicated significant changes to the current flow regimes and as such, minimal impact is expected to occur from the Project on supply and conveyance. Potential further impact to water plans may be expected due to the requirement for construction water, however this is expected to be regulated by the necessary authorities and will be conducted in accordance with the strategy for sourcing construction water (Appendix S: Surface Water Quality Technical Report, Section 1.4.55). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements. Water quality protection of aquatic ecosystems will confer protection to current existing conditions within the water quality study area, and water users downstream of the alignment. Therefore, identification of potential impact, mitigation measures (Section 7) and resulting impact assessment (Section 7.3) identifies any impact to surface water users (Appendix S: Surface Water Quality Technical Report). Noting this, during construction water sourcing, ARTC will ensure that any existing commercial arrangements for the access to and/or sale of water to other end users can be honoured by water entitlement holders. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).	Appendix B5: Construction Water Requirements Appendix S: Surface Water Quality Technical Report Section 1.4.55 Section 6.3 Section 7 Section 7.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
150	150.0006	Private	Stakeholder engagement	Land acquisition/compensation	ARTC has advised for over 3 years they will seek to acquire the entire property but has not provided a timeframe for when this will occur. This has caused a great deal of stress and uncertainty to the submitter especially whilst trying to run a business from the premises. The submitter cannot progress business plans due to the uncertain time frame and market value price of the acquisition.	ARTC should be conditioned to provide answers to these question not only to affected property owners but to the broader community for transparency.	The Department of Transport and Main Roads (DTMR) is managing the property acquisition process for the Project. ARTC notes that the submitter declined a meeting with DTMR regarding the acquisition process. Where the Project requires the permanent acquisition of properties and compensation is required, this will be undertaken in accordance with the requirements of the Acquisition of Land Act (the Act). As outlined in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC is engaging with directly affected landowners to develop an understanding of each household's circumstances, including those who may need support to adjust to changes brought about by the Project. Some who are affected may have limited socio-economic and/or personal resources to help them adapt to change, and may need specific support, including practical assistance to relocate from their current homes. ARTC has initiated an early acquisition process with landowners who are experiencing hardship in relation to land acquisition. Other mitigation measures detailed within the Social Impact Management Plan include: <ul style="list-style-type: none"> ensuring landowners receive appropriate information about the timing and process for land acquisition working with directly affected landowners to minimise disruptions related to the acquisition finalising compensation agreements for land acquisition under the Act. ARTC acknowledges the uncertainty that Project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Appendix X: Social impact assessment details the strategies that ARTC has implemented to support affected residents. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 6: Stakeholder Engagement Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
150	150.0007	Private	Social Impact Assessment	Directly impacted landowner	Submitter's home is being resumed and the location of business on the property is also being relocated. Submitter states the current location of their business is ideal and having to move will affect both income, day-to-day operation and ease of running the business. This will impact on them financially for long time.	ARTC need to investigate the economic impacts of the project on transport industry businesses including mechanics, tyre service and spare parts providers.	<p>An assessment of the economic impacts per lot, business or commodity is not in the scope of the EIS as per Section 5.1 and 11.141 of the final Border to Gowrie Terms of Reference, as approved by the Old Coordinator-General. The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. These outcomes have been summarised in the revised draft EIS.</p> <p>The Department of Transport and Main Roads (DTMR) is managing the property acquisition process for the Project. ARTC notes that the submitter declined a meeting with DTMR regarding the acquisition process. Where the Project requires the permanent or partial acquisition of properties and compensation is required, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (the Act). In relation to compensation matters, DTMR will be responsible for all land acquisition (either partial or whole property) required for the construction of the Project. Property acquisition, whether it be whole or partial, will be determined on a case-by-case basis, with negotiations being led by DTMR. Compensation for loss of land and interests in land will be assessed in accordance with Section 20 of the Act. Compensation for land acquisition may include compensation for disturbance caused by the resumption such as reasonable financial costs incurred as a direct consequence of the resumption of the land (Appendix X: Social Impact Assessment).</p> <p>As outlined in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC is engaging with directly affected landowners to develop an understanding of each household's circumstances, including those who may need support to adjust to changes brought about by the Project. Some who are affected may have limited socio-economic and/or personal resources to help them adapt to change, and may need specific support, including practical assistance to relocate from their current homes. ARTC has initiated an early acquisition process with landowners who are experiencing hardship in relation to land acquisition.</p> <p>Other mitigation measures detailed within the Appendix X: Social impact Assessment, Section 8, Social Impact Management Plan include:</p> <ul style="list-style-type: none"> ensuring landowners receive appropriate information about the timing and process for land acquisition working with directly affected landowners to minimise disruptions related to the acquisition finalising compensation agreements for land acquisition under the Act. <p>ARTC acknowledges the uncertainty that project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Appendix X: Social impact Assessment details the strategies that ARTC has implemented to support affected residents. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p>	<p>Chapter 6: Stakeholder Engagement Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8</p>
151	151.0002	Community Group	Traffic and Transport		Pedestrian crossing - will be used by children, hearing impairment possible from 115 decibel train to pass by	Install an underpass	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the reference design reviews and updates for the Yelarbon road rail interfaces and the proposed pedestrian crossing facilities. As part of the revised reference design a dedicated active pedestrian level crossing has been added at the existing Cunningham Highway interface location (310-11-E-1) to enable pedestrian movement north/south of the Yelarbon township. ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains in a Third Party Agreement with local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design.</p> <p>It's noted the submitters preference for underpasses; however, while they are intended to provide a safe and convenient means for pedestrians to cross the rail corridor, they often have several issues that undermine their effectiveness, which is why ARTC have progressed a Pedestrian level crossing at Yelarbon. Firstly, an underpass at Yelarbon would be subject to flooding causing several issues pertaining to drainage, availability and maintenance issues. Secondly, they can be perceived as dark, enclosed spaces, creating a sense of insecurity and fear among pedestrians, particularly during night-time or in isolated areas. This can deter people from using them, forcing them to opt for less safe alternatives such as crossing at surface level. The absence of surveillance or security measures further exacerbates these worries, making underpasses potential hotspots for criminal activities. Overall, while the concept of pedestrian underpasses is well-intentioned, these inherent issues need to be addressed through proper design, maintenance, and inclusion of safety measures to ensure their effectiveness.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.7.2</p>
152	152.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8).</p>	<p>Chapter 5: Project Description Section 5.6.4</p> <p>Appendix E: Consultation Report Section 5.11 Table E-56</p> <p>Appendix X: Social Impact Management Plan Section 8.4</p>
152	152.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. Could impact on Millmerran town parking availability. 	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8).</p>	<p>Chapter 5: Project Description Section 5.6.4</p> <p>Appendix E: Consultation Report Section 5.11 Table E-56</p> <p>Appendix X: Social Impact Management Plan Section 8.4</p>
152	152.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
152	152.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
152	152.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
152	152.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 5: Project Description Section 5.6.4 Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6
152	152.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
152	152.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
153	153.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation facilities, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
153	153.0002	Private - Turallin Workers	Traffic and Transport		a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. b. Increase in traffic on narrow roads that are already heavily traversed. c. Impact on Travel time as it is further from the alignment of the rail project. d. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. e. Could impact on Millmerran town parking availability.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation facilities, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
153	153.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage. Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility. As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation facilities, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4
153	153.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation facilities, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
153	153.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation facilities, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval. While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted. An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
153	153.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Eilerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the Contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design. Floor risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6
153	153.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities. Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population). Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders. Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.	Chapter 5: Project Description Section 5.6.4
153	153.0009	Private - Turallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.6
154	154.0001	Private	Noise and Vibration	Operational road traffic noise	This EIS refers only to rail noise. No account is made of truck engine or exhaust brake noise decelerating down the incline into the town of Yelarbon. This noise is substantial now and will be exacerbated by the overpass.	The rail to bypass Yelarbon by rerouting the line approximately 1 km north to the edge of the Yelarbon desert soils which is approximately the flood extent limit of the 1956 flood. This would have a secondary benefit of avoiding the desert soils which QR have had ongoing difficulties with rail stability.	During construction, traffic at this road over rail crossing (RRI ID 310-11-E-1) may be impacted, however during operation, traffic movement along the highway at this location is expected to be unimpeded. 2038 traffic noise desktop assessment results incorporated assumption of each road to have a 3% gradient. During design, the Project has been aligned to minimise the number of road-rail interfaces. Sensitive receptors in the town of Yelarbon have been included in the construction noise and vibration and operational road traffic noise assessments. Yelarbon is shown in Appendices C, D, and J of Appendix V: Noise and Vibration - Construction Noise and Road Traffic. The receptors have been assessed against the CoP V1 and CoP V2 criteria. The operational road traffic noise assessment results are shown in Section 8, Appendix I, and Appendix J of Appendix V: Noise and Vibration - Construction Noise and Road Traffic. Road traffic noise mitigation for the Project is discussed in Section 8 of Appendix V. Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8.2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to the Border to Gowrie Project.	Appendix V: Noise and Vibration - Construction Noise and Road Traffic Section 8 Appendix C Appendix D Appendix J Appendix J Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15
154	154.0002	Private	Social Impact Assessment	Infrastructure crossings/interaction	Proposal divides Yelarbon into 2 part. No allowance has been made for pedestrian or bicycle access across the line.	The rail to bypass Yelarbon by rerouting the line approximately 1 km north to the edge of the Yelarbon desert soils which is approximately the flood extent limit of the 1956 flood. This would have a secondary benefit of avoiding the desert soils which QR have had ongoing difficulties with rail stability.	With the exception of Yelarbon and Brookstead, the Project bypasses the main townships in the region, avoiding impacts on connectivity within towns. In Yelarbon, the existing level crossing will be preserved, and a grade separated crossing (road over rail) will also be provided over Yelarbon Kurumbul Road and connecting to the Cunningham Highway. The crossing design maintains connectivity from the Cunningham Highway to the township. There is currently no pedestrian path across the existing rail line in Yelarbon. As a result of consultation with GRC and the Yelarbon CCC (a community-run committee), the Project's reference design has been revised to include a pedestrian crossing to provide north-south connectivity.	N/A
154	154.0003	Private	Traffic and Transport	Infrastructure crossings/interaction	GrainCorp and Holdfast Timbers require access to Railway Parade and to the Keetah Bridge Road. Road layouts I have seen at information sessions do not address this need.	The rail to bypass Yelarbon by rerouting the line approximately 1 km north to the edge of the Yelarbon desert soils which is approximately the flood extent limit of the 1956 flood. This would have a secondary benefit of avoiding the desert soils which QR have had ongoing difficulties with rail stability.	Stakeholder Engagement occurred with GrainCorp in 2018 to understand their current and proposed operations and requirements. The feedback received from GrainCorp regarding the East Sawmill Rd level crossing noted that there were no issues with closing this level crossing. Access to Railway Parade is maintained via new intersection between the realigned Cunningham Highway/Yelarbon Kurumbul Road and the new intersection between realigned Yelarbon Kurumbul Road/Taloom Street. Access to Yelarbon Keetah Road is via the realigned Cunningham Highway (Taloom Street). Further assessment of the feasibility of the existing road-rail interface between East Sawmill Road and Railway Road has been undertaken. The proposed "no crossing provided" outcome has been retained as a result of: <ul style="list-style-type: none"> ▶ The conflict with proposed GrainCorp siding and turnout interface ▶ The ability for vehicular movements north/south of the rail line to occur via the safer, grade separated Cunningham Highway overpass, which directly connects to Railway Parade ▶ Revised treatment of 310-11-E-1 to retain existing pedestrian movement north/south of the rail line via a pedestrian crossing at the existing Cunningham Highway level crossing ▶ Feedback received from GrainCorp (during consultation in Yelarbon on 9 May 2018 and 6 September 2018) regarding the level crossing noting that there were no issues with the closure of this level crossing. The Project recognises GrainCorp as a key stakeholder and acknowledges the concerns regarding the closure of the level crossing between East Sawmill Road and Railway Road. The Project commits to continuing to work collaboratively with DTMR and GrainCorp to progress potential solutions during detailed design. Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the reference design reviews and updates for the Yelarbon road rail interfaces and the proposed pedestrian crossing facilities.	Appendix AA: Traffic Impact Assessment Section 3.7.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
154	154.0004		Economics		The EIS repeatedly claims economic benefit for the Yelarbon District, yet there is no allowance for local producers to access this freight train.	nil.	The Project is likely to offer opportunities in secondary service and supply industries (e.g. retail, hospitality and other support services) for businesses in close proximity to the construction footprint and non-resident workforce accommodation facilities. The expansion in construction activity has the potential to support additional temporary flow-on demand and additional spending by the construction workforce in the local community, this may lead to increased trading levels for small businesses, such as food and beverage businesses in the impact assessment area. Retail businesses in Millmerran, Inglewood and Goondiwindi have the potential to benefit from opportunities to supply materials and services to the Project's non-resident workforce accommodation facilities. Some local retail businesses may also benefit from increased trade from workers residing in these accommodation facilities (see Chapter 18: Economics, Section 18.9). As identified in Appendix X: Social Impact Assessment, Section 7.5.3, it is likely that some small businesses will need to scale up their current capacity to participate in the Project, particularly for businesses in rural areas along the alignment. All assumptions relating to demand modelling, including the connection to intermodal terminals or other supporting freight infrastructure, are considered in the Inland Rail Programme Business Case (2015). The revised draft EIS reflects the information contained in the Business Case and does not include any new assumptions. As such, considering the development of other infrastructure (e.g. intermodal terminals or supporting freight infrastructure) or Project options is outside the scope of this EIS. There may be opportunities for supporting freight infrastructure in the Yelarbon district; however, these are not captured under the scope of the EIS. The current reference design for the revised draft EIS for the Project, includes connecting the existing sidings at the GrainCorp silos, which will facilitate faster transport of grain to market (see Appendix X: Social Impact Assessment). The Project acknowledges GrainCorp's concerns regarding the closure of East Sawmill Road level crossing in Yelarbon, and will continue to work collaboratively with GrainCorp to progress solutions addressing access to the Yelarbon silos during detailed design. In addition, this does not preclude ARTC or another third party constructing such facilities at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment, and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, can occur a later date should there be a future need for such rail infrastructure at these locations.	Chapter 18: Economics Section 18.9 Appendix X: Social Impact Assessment
155	155.0001	Private	Flooding	Increase in peak water levels	The damage caused by poorly built rail lines and the building up of rail line to keep trains out of floods has historically caused more damage than previously, to surrounding areas. I believe that this is a justified concern about flood impacts by people in the floodplain areas where the rail line is proposed to traverse. We hear about these 1 in a hundred year events every couple of years lately so let's get this thing right from the start and give the land holders a fair go. I	Built up rail lines and flood plains don't mix. Listen to the landowners and get this right before anything is started.	Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.	Chapter 14: Flooding and Geomorphology Section 14.4 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5-17
156	156.0001	Private	Cultural Heritage	Non-Indigenous cultural heritage	The community informed ARTC about the location and significance of Maria Tibb's remains and grave but they have not been considered in the EIS.	nil.	It is acknowledged that ARTC has been aware of the grave since April 2019. In October 2021, ARTC conducted initial investigations at the property with the cultural heritage team and engaged with History Pittsworth, the local historical society, regarding appropriate management measures. Chapter 19: Cultural Heritage Section 19.4 and Table 19.15 have been updated with this information, and the significance of the grave and surrounding Green Hills Hotel site has been assessed in Table 19.17 in Section 19.5. Tables 19-20 and 19-22 make a series of recommendations to manage impacts to this place, including further archaeological assessment, relocation of the grave to the Pittsworth Cemetery, and heritage interpretation. Inland Rail is committed to work with History Pittsworth and the landowner throughout this process, where possible.	Chapter 19: Cultural Heritage Section 19.4 Section 19.5 Table 19-15 Table 19-20 Table 19-22
156	156.0002	Private	Groundwater	Private groundwater bore/s	Proposed 30+ metre cut will cause groundwater drawdown, likely making the submitter's bores inoperable. ARTC has not been able to answer any questions about worst case scenario impacts.	nil.	The predictive groundwater modelling undertaken as part of the EIS indicates that the horizontal extent of drawdown is predicted to only extend a maximum of 10 m to 43 m horizontally from the rail centreline (i.e. from the deepest cuts) and will be wholly contained within the Project footprint (see Chapter 15: Groundwater, Section 15.6.2). This drawdown will be localised around the vicinity of the deep cuts that intersect groundwater only. No impacts to landowner bores are anticipated. ARTC have undertaken a groundwater bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project. This bore survey was comprehensive such that all bores with potential to be impacted could be identified. Section 15.5.4 and 15.7.4 of Chapter 15: Groundwater has been updated accordingly with groundwater users, potential make-good process and measures.	Chapter 15: Groundwater Section 15.5.4 Section 15.6.2 Section 15.7.4
156	156.0003	Private	Social Impact Assessment		The project proposes to remove the rose garden built by the submitter, which contains the remains of his parents.	nil.	ARTC has assessed the location of the memorial sites and determined that the Project footprint would not impact them.	Chapter 19: Cultural Heritage
156	156.0004	Private	Social Impact Assessment	Local business and industry procurement	The submitter operates thoroughbred training on his property, which will be impacted by blasting to make the 30+ metre cut for the project. For safety reasons associated with blasting, the submitter will need to shift his thoroughbred training operations to another location and other horses will need to be agisted elsewhere at considerable expense.	nil.	Blasting will be a short term activity. Individual blasts will be coordinated and managed by a specialist blasting contractor that will establish the parameters of each blast to minimise air blast and vibration emissions. Chapter 24: Draft Outline Environmental Management Plan has identified measures with respect to mitigation of blasting impacts including: <ul style="list-style-type: none"> Vibration impacts from blasting will be assessed by the Contractor once the locations and depths of blasting and the charges to be used are confirmed. This assessment will confirm which receptors at which blasting impacts are expected to exceed the blasting vibration criteria, if any Where blasting impacts are expected to exceed the vibration limits, a range of measures are recommended where practicable, including consideration of alternative construction methods, Establishing a blasting timetable through community consultation for example, blasts times negotiated with surrounding sensitive receptors Residents, occupants and other stakeholders within 2 km radius of a blast location will be notified a minimum of three days in advance of a blast occurring. During detailed design, the construction noise and vibration assessment is to be refined based on a detailed construction methodology, and specific reasonable and practicable construction noise and vibration mitigation measures will be nominated.	Chapter 24: Draft Outline Environmental Management Plan
156	156.0005	Private	Traffic and Transport	Directly impacted landowner	Property access needs to be realigned because of the proposed 30+ metre deep cutting for the project. ARTC proposes to shift the access 600 m from its current location, which would be a considerable inconvenience.	The currently proposed access is unsafe and needs to be reconsidered.	Impacts to private access will continue to be addressed as the design and construction planning progress. Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties (including the realignment specified within the submission). Furthermore, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties (Chapter 8: Land Use and Tenure Section 8.5.1). The agreements outlined in Table 8-51 of Chapter 8: Land Use and Tenure may include: <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. ARTC's approach to considering level crossing options is consistent with relevant Qld and ONRSR level crossing policies. While ONRSR's policy is that no new level crossings be constructed, it recognises that where a new crossing is necessary, safety risks must be eliminated or minimised by designing new infrastructure consistent with rail safety legislation. The Qld and ONRSR level crossing policies suggest that building new level crossings should be avoided wherever possible and all other options should be explored before a new crossing is proposed as per Section 5.8 of Appendix AA: Traffic Impact Assessment. Alternative access, by way of a level crossing and/or access road, may be provided where the proposal would sever the existing access to a public road. This may affect private landowners, with potential effects including increased travel distances and/or changes to the movement of equipment and stock.	Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-51 Appendix AA: Traffic Impact Assessment Section 5.8
157	157.0001	Private	Groundwater	Private groundwater bore/s	ARTC contractor has already put down a Test Hole on Jilba, 100yards from and directly down slope from our windmill operated registered bore No.48387. ARTC has stated they will buy private water from landowners or drill their own bores for the project as required. If they equip this hole, they will pump considerably more water than our normal domestic and stock requirements from the aquifer. There is no other Test Hole known or visible along the route from this site in either direction. As you can imagine this is causing us considerable distress, our concern is that this Test Hole has been put down to drain our aquifer and degrade our bore prior to testing.	We were told that your Jilba Test Bore conveniently located 150 paces downslope from our Stock Bore would not affect our Bore. We were told ARTC would eventually test our Bore and assess its current performance then base any claim for loss on those results. Propose that an independent private company should assess our bore if necessary and also check your Test Bore through the fence to assess any draining of our aquifer. Of course this drought does not help but the longer your process drags out the more likely it is that our bore will fail through a combination of leakage and/or short term Construction shocks or long term Vibration. Either way we consider ARTC should be held directly responsible for any changes since the date of the test bore installation.	A Project bore, BH2352, is located in proximity to RN48387 and is constructed for baseline groundwater monitoring purposes only. As can be observed at the ARTC bore, there are no sheds, storage tanks or any other infrastructure that indicates the bore is extracting water. As part of ARTC's construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. The use of groundwater for construction water is not a preferred water source for the Project where other sources are available (i.e. recycled water). Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). In the instance where other preferable construction water supplies are not feasible and purchasing of extracted groundwater from existing entitlements is not available, a temporary permit may be warranted during construction. Any temporary permit would only be within the allowable extraction limit for the relevant water plan. Chapter 5: Project Description, Section 5.6.24 of the revised draft EIS details the findings of the current construction water procurement process. A water/groundwater bore survey has been issued to landowners to confirm the location/presence of water supplies that may be impacted by the Project. Where necessary make-good measures will be developed on case-by-case basis in consultation with the landowner. Details of the proposed potential make-good measures detailed in Section 15.7.4 and Table 15-20 of Chapter 15: Groundwater of the revised draft EIS. However, the measures developed for each impacted water storage feature/bore will be unique and commensurate with the level of impact realised, therefore specific details cannot be provided at this time.	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.7.4 Table 15-20 Appendix B5: Construction Water Requirements Report
157	157.0002	Private	Land Use and Tenure	Land acquisition/compensation	ARTC are cutting a diagonal route across the north/west corner of my neighbours property Jilba and this will result in a remnant parcel of land of insufficient size for Toowoomba Regional Council (TRC) to normally approve for subdivision. (Lot 3 AG3669 & Lot 3 RP124408 will have the North Western corners trimmed off. This parcel will be invisible from the Jilba homestead, and will require vehicle and water pipe access across/under the Rail Line if it remains part of Jilba. This pasture already suffers from weed infestation and neglect. Any new owner/business would need to immediately drill a bore down slope of our existing bore and thus put unwarranted pressure on the aquifer in these increasingly dry times.	We propose current landholder be compensated for loss of land and that the remnant north/west areas bordering Rosemount* be offered to us and joined into our Lot 205, after due process. ARTC saves the costs for the design/building of private vehicle access, and a water pipe route under/over the track. Future maintenance costs and fence security concerns/inspections are also saved forever. This will adhere/agree with the ARTCs Sustainability, No Harm, Reducing Ground Water Demand and Social Issues approach.	This issue is noted. ARTC will continue to consult with affected landowner on mitigation measures and solutions. As stated in Chapter 8: Land Use and Tenure, Section 8.6.3, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis using the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property The potential for changes in access to natural resources, such as groundwater and overland flow. 	Chapter 8: Land Use and Tenure Section 8.6.2 Section 8.6.3
157	157.0003	Private	Stakeholder engagement	Directly impacted landowner	Whilst ARTC have a right to make profits from the Project; they have no right to impose themselves on the existing and adjacent land owners without a fair compensation agreement. The fear of losing water access will have a detrimental impact on our ability to sustainability manage our own property. In the Project Rationale Section (p27) ARTC cite as a direct benefit 'Improved Sustainability and Amenity for the Community'.	We request an onsite visit by someone with authority to see and understand the problems and concerns we have and address them collaboratively.	As detailed in Appendix E: Consultation Report, Section 5, ARTC has carried out additional engagement with landowners regarding water as part of the consultation for the revised draft EIS. ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. ARTC confirms that it held a face-to-face meeting with the submitter in October 2021 and have had a number of ongoing conversations.	Appendix E: Consultation Report Section 5

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
157	157.004	Private	Noise and Vibration	Operational vibration	We are concerned that long term Train Vibration and short term Construction shocks will affect our buildings and Stock & Domestic Bore. We were verbally advised this was no problem but no paper work has been sighted to confirm.	We request an onsite visit by someone with authority to see and understand the problems and concerns we have and address them collaboratively.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). Operational noise and vibration mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>The construction blasting assessment within the draft revised EIS, has assessed blasting and has been assessed separately to construction airborne noise and ground borne vibration (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). This is because airblast overpressure and blasting ground borne vibration are assessed against specific blasting criteria. Blasting impacts have been assessed in accordance with DTMR's CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2.</p> <p>Ground-borne vibration from train passbys has been assessed in Section 13 of Appendix W: Noise and Vibration Assessment - Railway Operations. It has identified that any receivers with 12 metres from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the Detailed Design stage to verify the screening assessment outcomes.</p> <p>If blasting is deemed necessary for construction, appropriately trained and licenced shot firers will be engaged to undertake the blasting activities in accordance with QLD's regulatory requirements. In addition, ARTC will provide regular updates to the local community to ensure that residents are kept informed when blasting activities will be carried out. In relation to blasting activities, the following measures to mitigate blasting impacts are suggested where practicable (Section 16.10 of Chapter 16: Noise and Vibration):</p> <ul style="list-style-type: none"> ▶ Reducing the charge size by use of delays and reduced charge masses ▶ Ensuring adequate blast confinement to minimise the amount of overpressure ▶ Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. ▶ Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors ▶ Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. ▶ Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1
157	157.005	Private	Social Impact Assessment	Directly impacted landowner	Be difficult to continue as a Horse Agistment operation as there will be no direct observation of stock or easy access possible from "Jillba". This is important for any property used for Horse agistment. And especially critical and dangerous if moving fractious horses under the track and a train rumbles overhead	We request an onsite visit by someone with authority to see and understand the problems and concerns we have and address them collaboratively.	As outlined in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in its detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or impacted structures as required and where relevant, agreed noise mitigation measures. ARTC has met with the submitter at their property to discuss their concerns. ARTC will continue to keep the submitter updated as the Project progresses.	Chapter 6: Stakeholder Engagement Section 6.6
157	157.006	Private	Stakeholder engagement	Local business and industry procurement	Finally should your company not consider these ideas useful, then to prevent a public relations media/shock jock campaign just buy us out for a good price and we will be happy because without water any block is worthless.	We would prefer to settle these matters in the same tone that we have had dealing with Willow, David, Andrew & Crystal, staff of your firm, however, we have no intention of sitting back and waiting only to see the Project kicked off with silver shovels and much fanfare while we are still left adversely affected not only now but into the future by the direct actions of the ARTC project.	<p>The Department of Transport and Main Roads (DTMR) is managing the property acquisition process for the Inland Rail Project in Queensland. With regard to this submission, and the severance on the adjoining property, it will be undertaken in line with the Acquisition of Land Act, determined and managed by the Department of Transport and Main Roads.</p> <p>ARTC notes that subsequent to this submission, it has met with the submitter to discuss the Project and property acquisition process. Meetings regarding groundwater and the ground water monitoring bore have also been offered.</p> <p>The reference design is an iterative process, and stakeholder engagement is ongoing. As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and provide support to stakeholders and communities that are facing change due to Inland Rail.</p>	Chapter 24: Draft Outline Environmental Management Plan
158	158.001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
158	158.002	Private - Turallin Workers	Traffic and Transport		a. Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. b. Increase in traffic on narrow roads that are already heavily traversed. c. Impact on Travel time as it is further from the alignment of the rail project. d. Turallin and Eilerslie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in length. e. Could impact on Millmerran town parking availability.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
158	158.003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Enegex), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
158	158.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
158	158.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	Chapter 5: Project Description Section 5.6.4 Chapter 17: Social Section 17.5 Appendix E: Consultation Report Section 5.11
158	158.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The two 20 hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the Contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 20 Section 20.6
158	158.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.	Chapter 5: Project Description Section 5.6.4
158	158.0009	Private - Turallin Workers	Flora and Fauna	Aquatic fauna	Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.6
159	159.0001	Local Government	Approvals/ conditions/ recommendations		Project to be conditioned to include: 1. Financial allocation to GRC over the life of the project to engage a dedicated resource to act as an EIS Coordinator for Council and a single point of contact for the proponent ; and 2. Reference and regard to the Master Inland Rail Development Agreement (Contract no 9000-0373) between ARTC and GRC, which sets out roles and responsibilities of the parties in dealing with project activities in order to minimise any damage to or interface with the operation and use of assets and third party utility infrastructure and ancillary works and encroachments. These two matters represent the most significant priorities for Council and would, in Council's view, help facilitate the most beneficial outcomes for local communities, the ARTC, and GRC.	nil.	This issue is noted. Submission to be considered by The Office of the Coordinator-General.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0002	Local Government	Project scope		Chapter 2 describes the rationale for the project (including study of alternative options, benefits, planning context etc).	Adequately addresses Section 6.7 and 10.1 (e) of the Terms of Reference (TOR).	ARTC note Goondiwindi Regional Council's support of the EIS adequately addressing Section 6.7 and 10.1 (e) of the Terms of Reference.	N/A
159	159.0003	Local Government	Approvals/ conditions/ recommendations		Chapter 3 describes legislation, policies and plans required for the construction of the project	Adequately addresses TOR, legislation and policies up to date.	This issue is noted. Chapter 3: Legislation and Project Approvals Process has been updated to meet the Coordinator-General Terms of Compliance (Appendix A2: Terms of Reference - Cross Reference Table).	Chapter 3: Legislation and Project Approvals Process Appendix A2: Terms of Reference Cross Reference Table
159	159.0004	Local Government	Project scope		Chapter 6 provides summary of sustainability consideration in relation to design, construction and operation of the Inland Rail B2G.	Adequate sustainability considerations are in place.	ARTC notes the acknowledgement that adequate sustainability considerations are in place as per Chapter 6: Stakeholder Engagement of the revised draft EIS.	Chapter 6: Stakeholder Engagement
159	159.0005	Local Government	Land Use and Tenure	Land acquisition/compensation	The Proponent proposes to manage the impact through assessment on an individual case-by-case basis in consultation with landowners.	This case-by-case approach can be divisive in the community without a consistent and transparent approach. While there may be no practical alternative approach it is proposed that development of clear guidelines and fact sheets be undertaken for the community to understand the approach.	As identified within the Social Impact Management Plan (refer to Appendix X: Social Impact Assessment, Section 8.2.2, Table 8.7), an engagement mechanism for the remainder of the EIS stage is to: Provide communications collateral (website updates and fact sheet) and opportunities for engagement (community information sessions, Council briefings and CCC meetings) to encourage access to the draft EIS and community participation in the public submission process. Consultation with directly affected landowners and the community will continue through the Detailed Design stage. The approach is further detailed in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.6.2, for clarity: Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan.	Chapter 8: Land Use and Tenure Section 8.6.2 Appendix X: Social Impact Assessment Section 8.2.2 Table 8.7
159	159.0006	Local Government	Land Use and Tenure	Mitigation measures	The Project interfaces with the State stock route network, which consists of stock routes and reserves, in 11 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route.	The use of stock routes in the traditional sense may be intermittent and in some cases many years apart due to climate impacts. The continuity of stock routes for the traversing of stock should be addressed through community consideration as well as with the controlling authority.	The Project fencing strategy is described in Chapter 5: Project Description, Section 5.4.12. Section 5.4.12 Pest exclusion fencing states that there are three types of barrier fences that are identified in the <i>Biosecurity Act 2014</i> (Qld) rabbit-proof fence will need to be reinstated as shown in Table 5-19 Fencing Strategy by chainage and land use Chapter 8: Land Use and Tenure, Section 8.6.1 (Alterations to barrier fences) reports that ARTC have commenced consultation with the Goondiwindi Regional Council (GRC) to determine fencing requirements and solutions for reinstatement of the wild dog check fence. Consultation has also commenced with the Darling Downs–Moreton Rabbit Board (DDMRB) to determine fencing requirements for replacement of the rabbit proof fence. Refer to Appendix E: Consultation Report. Detailed design drawings of ARTC's nominated fencing solution for reinstatement of these fences will be submitted to GRC and DDMRB for acceptance prior to construction works commencing. Where severance of a biosecurity fence is required, it is anticipated that fence realignment and reconstruction will be undertaken as an Early Works package prior to the construction of rail infrastructure commencing. Chapter 8: Land Use and Tenure, Table 8-51 includes a commitment for further consultation with DAF and local governments and relevant stakeholders for the realignment or reinstatement of barrier fencing where the Project interfaces or severs fencing in accordance with Section S91(3) of the <i>Biosecurity Act 2014</i> . Further detail for barrier fencing is outlined in Chapter 5: Project Description Section 5.4.12 and Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Chapter 5: Project Description Section 5.4.12 Table 5.19 Chapter 8: Land Use and Tenure Section 8.6.1 Table 8-51 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix B2: Stock Routes Figures 1 - 26 Appendix E: Consultation Report Section 4.1.5 Table E-12
159	159.0007	Local Government	Land Use and Tenure	Infrastructure crossings/ interaction	The Project interfaces with the State stock route network, which consists of stock routes and reserves, in 12 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route.	The use of stock routes in the traditional sense may be intermittent and in some cases many years apart due to climate impacts. The continuity of stock routes for the traversing of stock should be addressed through community consideration as well as with the controlling authority.	Chapter 8: Land Use and Tenure, Section 8.4.1 (Alterations to stock routes) states that the Project interfaces with the State stock route network, which consists of stock routes and reserves, in 11 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route. The stock route interface treatments that have been included in the reference design are summarised in Chapter 8: Land Use and Tenure, Section 8.5.1 (Table 8-35). ARTC will continue to consult with DoR, GRC and TRC through the detailed design process to ensure that the proposed stock route interface treatments are suitable for future useability purposes. Chapter 8: Land Use and Tenure, Section 8.5.1 (Alterations to stock routes) reports that consultation has taken place between ARTC, DoR, and GRC with respect to redesign and management of stock routes following the construction of the Project. Refer to Appendix E: Consultation Report. Where the existing stock route crossings are impacted by the Project, at-grade, then level crossings will be provided. All level crossings will be designed to meet the current Australian, ARTC and road managers standards. Design features include, minimum 7.3 m stock crossing width, compliant sighting distances, crossing panels, warning signage, fencing and gates across the road approaches, but not across the tracks. Where the alignment is proposing to run linearly through an existing stock route, allowances have been made to widen the remaining route appropriately to ensure a corridor that is fit for the purpose of transport livestock. The revised reference design for the Project has endeavoured to maintain the integrity (connectivity and functionality) of the stock route network. In circumstances where the Project has the potential to impact on existing stock routes, ARTC has consulted with DoR, GRC and TRC to identify potential solutions for the treatment of rail and stock route interfaces. Outcomes of the several engagements have been summarised in Appendix E: Consultation Report and Appendix B2: Stock Routes. In the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner (Chapter 8: Land Use and Tenure, Section 8.6.1).	Chapter 8: Land Use and Tenure Section 8.4.1 Section 8.5.1 Section 8.6.1 Table 8-35 Appendix B2: Stock Routes Figures 1 - 26 Appendix E: Consultation Report Section 5.5.3
159	159.0008	Local Government	Land Use and Tenure	Mitigation measures	The Project will result in the severance of driveways and informal private access roads to individual properties. ARTC will continue to consult with potentially impacted landowners through the detailed design and construction planning process to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of: Landowners needs regarding access to the properties and the closure of private roads Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property The potential for changes in access to natural resources, such as groundwater and overland flow. Comment: Goondiwindi Regional Council (GRC) is concerned that the solutions offered by ARTC may not provide satisfactory outcomes. GRC propose that EIS conditions should provide adequate support to property owners in negotiating reasonable solutions without cost imposition.	As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au). Where superior fencing is required (for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur) a 1.8 m chain link boundary fence may be provided. Where existing property fencing is constructed to a different functional standard than proposed by the EIS requirement, fencing should be replaced in a like for like standard. For example, where properties are currently fenced with exclusion fencing or fencing specific to a stock type such as sheep, replacement fencing needs to meet the same specification.	As identified within the Social Impact Management Plan (refer to Appendix X: Social Impact Assessment, Section 8.2.2, Table 8.7), an engagement mechanism for the remainder of the EIS stage is to: Provide communications collateral (website updates and fact sheet) and opportunities for engagement (community information sessions, Council briefings and CCC meetings) to encourage access to the draft EIS and community participation in the public submission process. Consultation with directly affected landowners and the community will continue through the Detailed Design stage. The approach is further detailed in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.6.2, for clarity: Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan.	Chapter 8: Land Use and Tenure Section 8.6.2 Appendix X: Social Impact Assessment Section 8.2.2 Table 8.7
159	159.0009	Local Government	Land Use and Tenure		As the Project has been declared a coordinated Project, the provisions of local government planning schemes do not apply and therefore assessment of the Projects consistency with the planning schemes is not required. The temporary footprint allows for a minimum 5 m footprint beyond the permanent footprint for site fencing and temporary drainage structures, erosion and sediment control, movement of plant and utilities connections. The temporary footprint provides for the roadworks associated with the construction of the railway, permanent realignments and new roads. Where existing land use and tenure arrangement or potential impacts have been discussed, these are presented in the context of the permanent footprint, the temporary footprint or the Project footprint (both of the previous footprints combined).	GRC is concerned from this statement in regards to works associated with the project beyond the combined permanent and temporary project footprint that are not be subject to planning scheme requirements under the declared project arrangements. Land dealings such as reconfiguration of lots and other land use such as temporary camps beyond the footprint should be subject to planning scheme requirements which will control the impact and outcomes. In particular, severance of lots should take into account GRC planning scheme requirements. This issue must be made clear for the negotiating authority on land resumption.	Land use and zoning, as identified under the relevant local government planning schemes, is discussed in Chapter 8: Land Use and Tenure, Section 8.4.1. Section 8.5.1 discusses in detail, potential impacts between potential impacts to land uses and the proposed rail infrastructure. Section 8.5.4 also presents a compliance impact assessment and considered the consistency of the Project with the Goondiwindi Regional Planning Scheme 2018. The strategic framework, zones, and overlays have been explored to provide a local understanding of the area and assessment of the Project's compatibility with the local government's plans and vision for the region As discussed in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.3.3, the approvals to build and operate non-resident workforce accommodation facilities will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. The locations of the two non-resident workforce accommodation facilities (in Yelarbon and Ingleswood) have been identified and have been contained to rural land uses. The proposed locations are detailed in Table 8-44, Chapter 8: Land Use and Tenure. As stated in Chapter 5: Project Description, Section 5.6.4, the location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation facilities will be undertaken during detailed design. Chapter 8: Land Use and Tenure, Section 8.6 states, it is acknowledged that the construction of the Project alignment will cause lot severance, and result in a reconfiguration of existing property boundaries. Discussion regarding works beyond the Project footprint are further detailed in Appendix AD: Borrow pits and Appendix AE: Whetstone Material Distribution Centre.	Chapter 3: Legislation and Project Approvals Process Section 3.3.3 Section 3.4.5 Chapter 5: Project Description Section 5.6.4 Chapter 8: Land Use and Tenure Section 8.4.1 Section 8.5.1 Section 8.5.4 Section 8.6 Table 8-44 Appendix AD: Borrow Pits: Technical Supporting Information Appendix AE: Whetstone Material Distribution Centre: Technical Supporting Information
159	159.0010	Local Government	Land Resources	Overland flow/diversion	The rail alignment crosses multiple soil conservation plans that may or may not be active. The approach is to modify and revegetate.	The disruption to existing soil conservation plans, whether they are active or in suspended state, will require detail review for local catchment runoff given the possible impact to road assets. Any change to the overland flow paths will require consultation with GRC should the change impact the road network.	Where available, SCPs have been reviewed as part of the reference design and cross drainage aligned to ensure consistency within hydraulic modelling (refer to Chapter 14: Flooding and Geomorphology, Section 14.6.3 and Section 14.9.1). ARTC has liaised with the Department of Resources on requirements around existing SCPs with mitigation measures to be developed by a suitably qualified Certified Professional Soil Scientist. Detailed design will involve a review of all available Soil Conservation Plans (SCPs) (including all those listed in Chapter 9: Land Resources, Section 9.4.4), and engagement with affected stakeholders. SCPs have been reviewed and incorporated in drainage design for the revised draft EIS reference design. ARTC will review and consider these within the Detailed Design stage of cross drainage infrastructure. Ongoing consultation with impacted landowners and the Department of Resources will occur to further align cross drainage design with existing conditions (refer to Section 6.7 of Chapter 6: Stakeholder Engagement). Representative drawings of cross drainage infrastructure are provided in Appendix B1: Design Drawings.	Chapter 6: Stakeholder Engagement Section 6.7 Chapter 9: Land Resources Section 9.4.4 Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.9.1 Appendix B1: Design Drawings

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0011	Local Government	Waste and Resource Management	Spoil management	The construction of the alignment will aim for balanced cut and fill however it is noted that the project will create a spoil requirement. The mitigation approach is to minimise the volume of spoil and reuse spoil.	Given the soil types along the alignment, there is a very high chance of the need to dispose of spoil. The Proponent proposes that the Spoil Management Strategy will be used to manage the spoil. Changes in ground height may trigger an Operational Works Development Application. Alternatively, if there is no formal mechanism for spoil control, GRC should be consulted if the stormwater flow paths have been changed. The draft EIS should be conditioned to include GRC in the review of the Spoil Management Strategy implementation.	As per Chapter 22: Waste and Resource Management, Section 22.6, mitigation measures pertaining to waste management have been developed for the Project in accordance with relevant legislative requirements, aligning with the 2018 National Waste Policy and the <i>Waste Reduction and Recycling Act 2011</i> (Qld) hierarchy. As per Chapter 22: Waste and Resource Management, Section 22.5.2 Generation of waste materials, unsuitable material will be reused within the Project footprint through treatment, amelioration or drying where practicable. Offsite reuse options may also be considered, subject to: <ul style="list-style-type: none"> Compliance with relevant legislation and policy framework Demonstration of the material as clean Written agreement with the receiver. Material that cannot be treated for appropriate reuse may be disposed offsite; however, offsite disposal to landfill will only occur as a last resort, if the material is considered unsuitable for other uses (e.g. due to geotechnical or contamination reasons). Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides overarching principles to guide the storage, treatment, reuse or disposal of material generated during construction of the Project and will be finalised prior to commencement of construction, in consultation with Toowoomba Regional Council, Goondiwindi Regional Council and other relevant stakeholders.	Chapter 22: Waste and Resource Management Section 22.5.2 Section 22.6 Appendix AB: Earthworks Strategy and Draft Soil Management Plan
159	159.0012	Local Government	Landscape and Visual Amenity		The assessment of the impact to the township of Yelarbon (Viewpoint 2) is considered to have moderate sensitivity. The project will remove existing rest area from use during construction then reinstate. The construction of the Cunningham Highway on the western side of town has been identified as a high magnitude of change.	The impact to the township of Yelarbon will be considerable as the rest area is used on a daily basis. While it is noted that it is of a temporary impact, the time taken to establish a similar visual aspect could be a number of years. Consideration should be given to undertake a fast-tracked approach to establish an ascetic background. A decision on the level of treatment to the embankment should ensure the town community has an input into the visual treatment of the large embankment. The draft EIS should include local community involvement in the redevelopment of the Yelarbon rest area. The GRC is also concerned on the visual impact that may have on the effectiveness of Council's tourism strategy. In particular the grain silos provide attractive backdrops for rural scenic values. The overall impact of the project on the tourist visitation is a concern and should be addressed in the EIS.	The fieldwork for the revised draft EIS took place from 2018-2022. During initial site visits in 2018 the GrainCorp silos at Yelarbon were not part of the artwork trail and no viewing area was present. At this time, a viewpoint was taken in the direction of the silos from the corner of the Cunningham Highway and Wyemo Street, however, was not included in the assessment as the number of permanent visual receptors in the vicinity of Viewpoint 3 (the selected viewpoint) was considered to be much higher. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3. Yelarbon rest area has been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. An additional site visit was undertaken in October 2021, to assess the potential impact of views from the GrainCorp silo artwork viewing area (which had not been constructed at the time of undertaking the initial field investigation). As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Impact Assessment, Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers. ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos were affected by noise walls, ARTC would facilitate provision of mitigation measures e.g. a complementary mural on the noise wall, in consultation with the Yelarbon community and the Goondiwindi Regional Council.	Appendix K: Landscape and Visual Impact Assessment Section 8.2.4 Section 9.1.4
159	159.0013	Local Government	Flora and Fauna		Chapter 10 identifies ecological values within the impact assessment area, assess the potential impacts and identify mitigation measures.	Clearing will directly impact: <ul style="list-style-type: none"> populations of threatened flora (Homopholis belsonii, Digitaria porrecta and Picris barbarorum) several of concern and endangered regional ecosystems Potential Threatened Ecological Communities (TECs) in the project area were not mapped during field surveys. The proposed Construction Environmental Management Plan (CEMP) will include measures for weed surveillance and treatment during construction and rehabilitation activities, reducing the potential impacts from biosecurity risks to adjoining land and agricultural properties. The Proponent should ensure these programs are sufficient at reducing weed incursions across the project area, in particular on access roads adjoining the rail corridor. A Biosecurity Management Sub Plan will be developed as a component of the CEMP. As weeds are common, it is suggested that the Proponent has input from land holders on weeds that will impact farming etc. Direct impact of wildlife through vehicle strikes etc., due to increased traffic and road construction: The EIS has recommended fauna fencing to mitigate this, potential for further mitigation measures (e.g., reduction of speed limits and fauna signs to be implemented). Fauna fencing details will be developed during the detail design phase. The Proponent should clarify type of fencing, location and ensure impact to residents is minimised, appropriate consultation required. The project alignment intersects the wild dog check fence (which GRC maintains) at four (4) locations. The EIS has stated the fence will be reinstated on the northwest side of the rail corridor in accordance with the design solution agreed with GRC through the detail design process. Communication between the Proponent and GRC will be required to achieve appropriate mitigation measures. Where the Project crosses the Darling Downs Moreton Rabbit Board (DDMRB) fence at chainage Ch 120.2 km, the fence will be reinstated and a rabbit trap will be established in accordance with the design solution developed in consultation with DDMRB through the detail design process. The EIS has stated that a complaint hotline for the Project will be established and advertised to enable members of the public to notify ARTC of issues, including concerns regarding weeds and pests. Translocation of specimens to be undertaken where appropriate for a species and where there is documented record of previous translocation. Trials/schemes. Phytophthora cinnamomic and Austropuccinia psidii have been identified as potential pathogens on site, therefore a potential for works to spread other pathogens. The draft EIS should ensure any concerns for pathogen spread is addressed by the Proponent. The EIS has stated that a Project Offset Plan will be developed in order to provide for the staged delivery of offsets ahead of relevant clearing work and the location of these areas need to be identified. Draft EIS conditions should include a requirement for GRC to be engaged in both the Biosecurity Management Sub Plan and Project Offset Plan. Issues relative to pests and weeds that are raised in the complaint hotline should also be referred to GRC for its data base and future monitoring. 	A detailed assessment on potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. In addition, displacement of threatened flora and fauna by invasion of weeds, pathogens and pest species is discussed. Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project alignment. These are outlined in Chapter 11: Flora and Fauna, with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction, Construction Works and Operations stages. These measures include the development of a Biosecurity Management Plan to be developed as a component of the CEMP for the Project that would address impacts from weeds, pests and pathogens. In addition the auditing, monitoring and reporting requirements for the Project are also detailed. The CEMP, which is further detailed in Chapter 24: Draft Outline Environmental Management Plan, establishes the procedures, timeframes, measurable performance objectives, responsibilities for monitoring the success of rehabilitation and/or reinstatement/stabilisation areas and proposed corrective actions if the outcomes of rehabilitation and/or reinstatement/stabilisation are not achieved. Chapter 24: Draft Outline Environmental Management Plan states that a Biosecurity Management Plan will be developed as a component of the CEMP to provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens. It will also include weed surveillance and treatment during construction and rehabilitation activities such as: <ul style="list-style-type: none"> Vehicle and plant washdown requirements for fleet moving from low-risk areas to high-risk areas Weed certification requirements for vehicles, plant and materials arriving onto the construction site. A fauna movement provision and fencing strategy has also been prepared for the Project (see Appendix P: Fauna Connectivity Strategy) which identifies the location of proposed fauna crossing opportunities for species such as Koala. This strategy also considers the interaction of the Project with existing fencing including the Wild Dog Check Fence.	Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan Appendix P: Fauna Connectivity Strategy
159	159.0014	Local Government	Approvals/ conditions/ recommendations	Aquatic fauna	Chapter 11 provides an assessment of the impacts on the environmental values of air and subsequent impacts on sensitive receptors.	Sensitive receptors were identified via a desktop review of aerial imagery and no site verification was undertaken. The Proponent is to conduct field verification of this. There is potential to implement constant monitoring of rainwater tanks to measure the impacts of dust deposition on nearby residences. The Proponent should ensure stockpiles are located at an appropriate distance from any residences. The draft EIS should be reviewed in order to address these issues above.	A review of satellite imagery was completed to determine sensitive receptor locations along the Project corridor. This included visual identification of structures that could potentially be residential dwellings within a 1 km distance of the alignment (Chapter 12: Air Quality, Section 12.32). It is possible that some of these structures identified would not be residential dwellings and instead be unoccupied buildings such as sheds or farm buildings. As all identified sensitive receptors (residential dwellings or otherwise) have been included within the air quality impact assessment, based on this conservative approach, ground truthing of identified sensitive receptors is not required. In addition to assessing impacts on air quality at households, the assessment also investigated potential impacts to tank water quality during the operation of the Project (Section 12.33 and Section 12.52 of Chapter 12: Air Quality). This assessment was completed by predicting the deposition of pollutants on the roofs of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from a roof into a water tank. This assessment showed that tank water quality impacts from the Project would be negligible with pollutant concentrations well below the concentrations prescribed by the Australian Drinking Water Guidelines (National Health and Medical Research Council and National Resource Management Ministerial Council). Therefore, no treatment or mitigation measures, such as first flush systems or constant water quality monitoring, are required for rainwater tanks.	Chapter 12: Air Quality Section 12.32 Section 12.33 Section 12.52
159	159.0015	Local Government	Surface Water	Monitoring	Chapter 11 provides an assessment of the impacts of the proposed project of surface water resources and water quality.	The Proponent should provide a plan for monitoring surface water quality during construction and operation phases. This monitoring plan should be included in the draft EIS.	The locations, frequency and parameters of interest for water quality sampling during construction will be subject to confirmation as part of the CEMP. The frequency and location of surface water sampling during construction of the Project will be established with consideration for: <ul style="list-style-type: none"> Construction activities with potential to impact water quality Seasonality Sensitivity of receiving watercourse. Water quality monitoring requirements will be developed in consultation with DRDMW and DES, to be reviewed and accepted by the Environmental Monitor. This is documented in Section 13.6.3 of Chapter 13: Surface Water and Section 24.9.6 of Chapter 24: Draft Outline Environmental Management Plan. Mitigation measures and procedures during the Operations stage of the Project in response to spills will be implemented in accordance with the hazardous material management Plan in Chapter 24: Draft Outline Environmental Management Plan. ARTC does not foresee a need for regular water quality monitoring during operation of the Project, once the landform has stabilised after rehabilitation works. However, water quality monitoring may be conducted as part of the response to spills or other discharge events e.g. train derailment)	Chapter 13: Surface Water Section 13.6.3 Chapter 24: Draft Outline Environmental Management Plan
159	159.0016	Local Government	Surface Water	Construction water supply	ARTC recognises water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the detail design phase of the Project (post-EIS). Through this process, detailed water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.	Recent experiences of high frequency of longer drought periods is a concern for water security of urban water supply. Water security is a high priority for GRC and therefore so is the use of water for construction purposes. The possibility of an exemption for the Proponent to use water is a concern as there may be no ability for the Council to object to this accessing of water within the source of the urban supply and its catchments. The conditions of approval must acknowledge GRC concerns and ensure the security of the urban water supplies are not compromised.	ARTC recognises water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable. Appendix S: Surface Water Quality Technical Report, Section 1.4.55 states: <p>*ARTC recognises that water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan, developed in consultation with local and state government representatives, as well as potential water suppliers. Further detail regarding water sources for the Project is outlined in Appendix B5: Construction Water Requirements. * An assessment of the suitability of each source will need to be made for each construction activity requiring water, based on the following considerations as outlined in Section 1.4.56 of Appendix S: Surface Water Technical Report: <ul style="list-style-type: none"> Available volume from identified source Legal access Volumetric requirement for the activity Water quality requirement for the activity Source location relative to the location of need. 	Appendix B5: Construction Water Requirements Report Appendix S: Surface Water Quality Technical Report Section 1.4.55 Section 1.4.56

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0017	Local Government	Groundwater		Chapter 13 addresses the potential impacts of the project on groundwater resources.	Impacts of groundwater have been considered; however, the Proponent should ensure the following is addressed in the draft EIS: Updated bore reports should be obtained prior to construction to ensure no new bores are impacted; Groundwater quality may be affected by spills and leaks from heavy machinery, drill rigs; Ensure a Groundwater Management and Monitoring Program (GMMP) and Hazardous Materials Management Sub-Plan are followed.	Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The baseline water quality dataset, in addition to regular groundwater quality monitoring, will allow for trend analysis and the early detection of possible water quality changes, such as mixing of water types resulting from dewatering. Contamination to groundwater is considered to be at most risk during construction of the Project. Identified risks include possible machinery fuel and oils spills and leaks (Chapter 15: Groundwater, Table 15-17). The Construction Environmental Management Plan (CEMP) will include measures to prevent pollution of groundwater from construction of the Project (Chapter 15: Groundwater, Table 15-20). Relevant examples of commitments from ARTC include: <ul style="list-style-type: none"> Vehicle and plant - regular maintenance will be undertaken in suitably bunded hardstand areas Chemical and dangerous goods storage areas will be located in appropriately designed facilities, such as bunded areas, sealed or lined surfaces, hardstand areas, or storage within containers. Storage of chemicals, oils, fluids and other hazardous substances will be in accordance with the appropriate safety data sheets and relevant Australian Standards. Imported fill material will be clean, certified contaminant free and be required to comply with regulatory guidelines for the intended use. Appropriate quantities and types of rapid spill/leak clean-up spill kits will be maintained onsite Potential contamination to groundwater during the Operations stage can occur as a result of standard operations and maintenance of the railroad, e.g. refuelling, rail grinding (Chapter 15: Groundwater, Section 15.6.4). The groundwater management and monitoring program (GMMP) has been updated as part of the revised draft EIS in Chapter 15: Groundwater Section 15.7.3 and Appendix U: Groundwater Technical Report, Section 8.3. Chapter 24: Draft Outline Environmental Management Plan presents an indicative outline for the Environmental Management Plan (EMP) and includes a waste management subplan. The Draft Outline EMP is considered to be adopted for the CEMP.	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.6.4 Section 15.7.4 Table 15-17 Table 15-20 Chapter 24: Draft Outline Environmental Management Plan Appendix U: Groundwater Technical Report Section 8.3
159	159.0018	Local Government	Noise and Vibration	Operational rail noise	Provides an assessment of the potential noise and vibration impacts of the project and subsequent impacts on sensitive receptors.	GRC has overall concerns about the operational noise and vibration impacts on the individual properties along the rail line and expects the Proponent will provide specific mitigation to these properties. It is requested that the EIS conditions assist the property owners in the negotiations with the Proponent in achieving a satisfactory outcome. GRC has specific concerns with the noise and vibration within the township of Yelarbon. Mitigation should address the social impacts of the additional and accumulated noise of the road and rail adjacent to the town. To monitor the effectiveness of the mitigation GRC, requests permanent noise monitoring to be installed and remotely monitored so that the community can raise substantiated concerns of breach of the conditions by the operations of the project The Proponent should identify where controlled blasting will follow the results of the geotechnical report.	The revised draft EIS has been updated to address potential impacts from operational noise and vibration to sensitive receptors along the Border to Gowrie alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). Appendix W: Noise and Vibration Assessment - Railway operations, Section 17, and Chapter 16: Noise and Vibration, Section 16.10 of the revised draft EIS provide specific noise mitigation measures proposed to control noise at residences. These measures include physical mitigation (noise barriers) and property upgrades to existing residences. Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. Compliance noise and vibration monitoring will be undertaken within 6 months of Project opening to ensure that mitigation measures are adequate (refer to Section 16.10 of Chapter 16: Noise and Vibration). If the results of monitoring indicate additional exceedances of the operational noise and vibration criteria, then additional reasonable and practicable mitigation will be implemented in consultation with affected property owners.	Chapter 16: Noise and Vibration Section 16.6 Section 16.10 Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17.4 Section 17.4
159	159.0019	Local Government	Social Impact Assessment		Chapter 17 describes the results of the Social Impact Assessment (SIA), which under the Project's Terms of Reference (TOR), must assess the type, level and significance of the Project's social impacts (both negative and positive) throughout the Project's lifecycle.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	ARTC welcomes the opportunity for continued engagement and cooperation with Goondiwindi Regional Council. ARTC partnered with Goondiwindi Regional Council to support a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment, Section 8.3.2 has been updated in this regard.	Appendix X: Social Impact Assessment Section 8.3.2
159	159.0020	Local Government	Social Impact Assessment	Aquatic fauna	The SIMP notes that there is a role for Council in SIMP implementation and monitoring including: <ul style="list-style-type: none"> Involvement in development of the Community Wellbeing Plan and draft Accommodation Management Plan Cooperation in joint initiatives with ARTC Provision of six-monthly feedback during construction on: <ul style="list-style-type: none"> Results of initiatives to offset impacts on amenity, character and cohesion Project use of housing short term accommodation Local procurement outcomes Review of annual SIMP reports Participation in annual SIMP reviews Participation in independent review of the SIMP at the end of Year 1, prior to commissioning and during Year 3 operations. Additionally, the draft EIS points to the comprehensive 'Engagement' Strategy that will be undertaken: <ul style="list-style-type: none"> Pre-approval Post approval During operations and supported by a: <ul style="list-style-type: none"> Community Reference Groups Community Liaison Officers Community Relations Monitor; and Complaints and Feedback Procedure 	Specific engagement initiatives with GRC are outlined in Table 15.21 and are comprehensive. Whilst the Proponent's engagement schedule with Council is positive, it points to a resourcing issue for GRC. As such, it is requested that the project be conditioned to provide a financial allocation to GRC over the life of the project to engage a dedicated resource to act as an EIS Coordinator on behalf of Council and a single point of contact for the Proponent.	ARTC acknowledges the time and commitment invested by GRC councillors and staff in responding to issues associated with the project. ARTC is unable to fund a dedicated resources on behalf of Council, but will continue its engagement with Council to the agreed schedule.	N/A
159	159.0021	Local Government	Social Impact Assessment	Workforce accommodation village	Temporary non-resident workforce accommodation locations are proposed in the vicinity of Millmerran (Turallin), Inglewood and Yelarbon, accommodating up to 300 workers at peak, with potential impacts on demand for health services and concerns about community safety, resulting from large numbers of non-local personnel being around small communities and homes.	The draft EIS highlights that GRC's preference is for non-resident workforce accommodation to be located at Inglewood and Goondiwindi, with the latter being the preferred location to Yelarbon. Despite Council's preference, the draft EIS states that it is not possible to locate a facility at Goondiwindi due to travel time and issues associated with fatigue management. The draft EIS describes that the workforce accommodation will be self-contained and supported by ancillary infrastructure. Notwithstanding these infrastructure provisions, there is still the potential that the workforce accommodations will have impacts (both material and marginal) on GRC infrastructure and services. It is requested that the supporting infrastructure associated with the workforce accommodation also include and give consideration to: Design requirements and building materials of structures Landscaping and aesthetics requirements Boundary fencing Lighting Emergency services arrangements, such as fire Internal road standards Waste disposal – use of council waste and transfer facilities Road frontage and intersection standards with the local road network Signage Transportation provisions to and from the site Liquor licensing Removal of structures and rehabilitation of the site	The Accommodation Management Plan (AMP) to be prepared by the Project will address Council's submission. Revised draft EIS Appendix X: Social Impact Assessment, Section 8.4.4 has been updated with more detail regarding the AMP scope. Appendix X: Social Impact Assessment, Section 8.4.4 provides that the Contractor will consult GRC, TRC, DHPW, Queensland Health and OPS regarding the scope and management measures to be provided in the AMP. Further community engagement regarding the Project's accommodation strategies will be undertaken in 2023, including identification of business or employment opportunities relating to the accommodation facilities and identify specific issues to be addressed as part of the AMP. Appendix X: Social Impact Assessment, Section 8.4.4 has been revised to reflect Council's submission regarding mitigation of impacts on GRC infrastructure and services.	Appendix X: Social Impact Assessment Section 8.4.4
159	159.0022	Local Government	Social Impact Assessment	Indigenous cultural heritage	Characteristics of local communities that may be affected by the project.	Characteristics of local communities that may be affected by the project. Comment: No discussion of who the identified Aboriginal Parties are, how many Indigenous people live in the community, or any of the conditions that they live under. This should be addressed in the draft EIS	Revised draft EIS Appendix X: Social Impact Assessment, Section 7.1.1 includes a detailed description of Traditional Owner interests in the SIA study area. The aforementioned description has been added to Chapter 17: Social, Section 17.4. Appendix X: Social Impact Assessment, Section 5.2.3 describes Indigenous populations in potentially impacted communities, and Appendix X: Social Impact Assessment, Section 5.7.5 describes Indigenous health.	Chapter 17: Social Section 17.4 Appendix X: Social Impact Assessment Section 5.2.3 Section 5.7.5 Section 7.1.1
159	159.0023	Local Government	Social Impact Assessment	Indigenous cultural heritage	A summary of Indigenous communities.	This should be included in with the previous headings. It is unclear which Traditional Owners belong to which localities. This should be addressed in the draft EIS.	Revised draft EIS Appendix X: Social Impact Assessment, Section 7.1.1 includes a detailed description of Traditional Owner interests in the SIA study area. The aforementioned description has been added to Chapter 17: Social, Section 17.4. Appendix X: Social Impact Assessment, Section 5.2.3 describes Indigenous populations in potentially impacted communities, and Appendix X: Social Impact Assessment, Section 5.7.5 describes Indigenous health.	Chapter 17: Social Section 17.4 Appendix X: Social Impact Assessment Section 5.2.3 Section 5.7.5 Section 7.1.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0024	Local Government	Social Impact Assessment		An Economic Impact Assessment (EIA) has been prepared to identify the potential economic impacts of the proposed Inland Rail – Border to Gowrie Project on the local and regional area as well as the State. It does this through undertaking an: <ul style="list-style-type: none"> ► Evaluation of the Existing Economic Environment ► Economic Benefits Assessment ► Regional Impact Analysis ► Local Economic Impact Assessment; and ► Cumulative Impact Assessment 	Whilst the results of the economic benefits assessment are positive, the draft EIS also highlights that the project will cause disruption to the agriculture and tourism industries by reducing the productive capacity of some farms and reducing tourist numbers to the region due to changes in amenity, connectivity and access to local landscape attractions. These disruptions combined with the consequences of land acquisitions may affect property values and local incomes, which has the potential to affect GRC's own source revenues. At the same time, it is likely that GRC's budget allocation for infrastructure projects may be impacted as a result of work associated with road and level crossing infrastructure upgrades/augmentation. Whilst the project offers significant regional and state level economic benefits, impacts on GRC's financial sustainability should be considered in light of potential loss of own source revenues coupled with impact due to road and level crossing infrastructure upgrades.	ARTC will continue to cooperate with GRC to find satisfactory solutions which address changes affecting the agricultural and tourism industries.	N/A
159	159.0025	Local Government	Cultural Heritage	Baseline/background sampling	Informed by relevant Indigenous and non-Indigenous values or conditions, informed by desktop research and field investigations.	Table 17.12 Why was the search area for 1 km for Indigenous values and only 50 m for non-Indigenous values? The draft EIS should include a wider search area in consultation with GRC and local communities.	As outlined in Chapter 19: Cultural Heritage, Section 19.3, locations of potential heritage interest have been identified within a 1 km radius of the Project footprint for both Indigenous and non-Indigenous (historical) heritage. Impacts have then been assessed for historical heritage places within 50 m of the Project footprint. This 50 m radius allows for potential direct and indirect impacts to heritage places to be considered. Impact assessment for Indigenous heritage places is being managed under the Cultural Heritage Management Plan.	Chapter 19: Cultural Heritage Section 19.3
159	159.0026	Local Government	Cultural Heritage	Aquatic fauna	Potential impacts that may occur to heritage places or sites as a consequence of Project activities.	Section 17.6.1 Unsure of impacts that have been identified due to only specifying within the Cultural Heritage Management Plan (CHMP) and not listing in this document. Table 17.18 Poor word choice for heading significance perhaps should be register. Those listed as none may not have been assessed and this needs to be specified. Section 17.6.2.2 There are only two (2) categories direct OR indirect impacts. There should be a third, being direct AND indirect impacts. These above sections should be reviewed in the draft EIS.	Cultural Heritage Management Plans are confidential documents and cannot be made publicly available. The identification of Indigenous cultural heritage and assessment of potential impacts is occurring in consultation with the relevant Aboriginal Parties and in accordance with the approved CHMPs for the Project which forms the basis for tangible and intangible Indigenous heritage considerations. The approved CHMPs for the Project are confidential and do not allow details on their content to be disclosed without following due consideration to the relevant Aboriginal Parties. The broad activity types defined in the ACH Act Duty of Care Guidelines provides general guidance on the potential for harm to be caused to Aboriginal cultural heritage. The Duty of Care Guidelines recognise that it is unlikely that Indigenous cultural heritage will be harmed where: <ul style="list-style-type: none"> ► The proposed activity is on an area previously subject to significant ground disturbance and the activity will impact only on the area subject to the previous disturbance; or ► The impact of the proposed activity is unlikely to cause any additional harm to Indigenous cultural heritage than that which has already occurred. Section 19.5 1 of Chapter 19: Cultural Heritage provides detail on the process of the identification of Indigenous cultural heritage and assessment of potential impacts in consultation with the relevant Aboriginal Parties and in accordance with the approved CHMPs for the Project. The approved CHMPs for the Project are currently confidential and sensitive in nature and therefore, pursuant to the Aboriginal Cultural Heritage Act 2003, no further details on their content can be provided in the revised draft EIS. Details regarding consultation with relevant Aboriginal Parties are provided in Section 19.3.5 of Chapter 19: Cultural Heritage and Appendix E: Consultation Report. In regards to Table 19-15), the Table lists the assessed significance of sites, not entry within a heritage register, and hence the heading is appropriate. Those sites listed as 'none' have been assessed as part of the EIS (Table 19-14) and found to be of no significance. In regards to classification of impacts, most heritage places that are directly impacted will also be indirectly impacted to some extent. The direct impact will cause the greatest magnitude of change, and so is the most relevant type of impact for the assessment. However, mitigations are provided for both direct and indirect impacts as relevant (see Table 19-22 of Chapter 19: Cultural Heritage).	Chapter 19: Cultural Heritage Section 19.3.5 Section 19.45.1 Table 19-14 Table 19-15 Table 19-22 Appendix E: Consultation Report
159	159.0027	Local Government	Cultural Heritage	Aquatic fauna	Cultural heritage Conclusions	Should the CHMP cover maintenance of the existing rail corridor? The assertion that the assessment of Indigenous heritage values and impacts has been undertaken by a team of appropriately qualified heritage specialists and has used a combination of register searches, historical and archival research to identify areas of high cultural heritage potential within 1 km of the Project is overstated, as some searches were only conducted within 50 m of the project. This should be reviewed in the draft EIS.	Scope of Cultural Heritage Management Plan clarified in Chapter 19: Cultural Heritage, Section 19.1. As outlined in Chapter 19: Cultural Heritage, Section 19.3, locations of potential heritage interest have been identified within a 1 km radius of the Project footprint for both Indigenous and non-Indigenous (historical) heritage. Impacts have then been assessed for historical heritage places within 50 m of the Project footprint. This 50 m radius allows for potential direct and indirect impacts to heritage places to be considered.	Chapter 19: Cultural Heritage Section 19.1 Section 19.3
159	159.0028	Local Government	Traffic and Transport		The Guideline to Traffic Impact Assessment (GTIA) has been used as a point of reference for the traffic and transport assessment, as it relates to roads and intersections affected by the construction and operation of the Project. GTIA provides information about the processes involved to assess road impacts triggered by a proposed development. While it is not mandatory, the GTIA provides a basis for the assessment of road impacts and has been adopted for the preliminary assessment on traffic and pavement impacts by the Project.	The use of the Guideline to Traffic Impact Assessment focuses on the impacts of level of service in terms of road volume capacity rather than structural capacity and consumption of useful life of pavement, with an increased number of Equivalent Standard Axles (ESA's). A local government local road impact assessment should be based on an asset management approach, rather than a just a service volume approach. Therefore, an additional method of assessment other than just traffic volume impacts on local government roads is required. It is suggested that in the circumstance of low volume unsealed roads, the use of Dilapidation Reports, which involves before and after pavement assessment, be undertaken in order to assess damage, required repairs and compensation paid where necessary. This option does not preclude an initial pavement strengthening where necessary as identified by Council, however, condition of the road network utilised during rail construction of the B2G Section will require monitoring and rectification at no cost to Council. Regardless of the work undertaken on roads, the Proponent should be required to repair damage associated with construction activity prior to commissioning or pay compensation to GRC to rectify the damage. Clearly, there would be a requirement for an independent assessor and arbitrator for determination of the outcome from the Dilapidation Report. The Master Inland Rail Development Agreement (MIRDA) has been drafted to address Council assets that will be impacted by the project. The draft EIS should acknowledge the MIRDA and the EIS conditioned in order to ensure that contract arrangements will address the impacts to assets.	Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts and highlighting mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. As a result, ARTC is in ongoing discussions with the submitter and Road Manager, Goodwindi Regional Council (GRC), on pavement impact and road maintenance arrangements. Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.	Appendix AA: Traffic Impact Assessment Section 5.6
159	159.0029	Local Government	Traffic and Transport		It is worth noting that the determination of the final construction and heavy vehicle (HV) routes will be subject to consultation between DTMR, the local government authority and the Principal Contractor during the next phase of the Project and may involve the construction of temporary work and/or amendments to the permanent road network.	Deferral of the final construction detail to construction phase exposes local government to an assessment process to determine a solution, without the support of legal processes to manage the impact to community infrastructure. The Proponent controls the contractual outcomes for the project through the specification of deliverables. For contract and asset management certainty, both the contractor and GRC would require the outcome to be defined prior to the tender process. The cost impact to GRC to undertake these assessments should not be borne by the local community. The MIRDA process and outcomes should be acknowledged in the draft EIS as the mechanism to address impacts on construction routes.	Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered. The relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment. Requirements for roads upgrades to be finalised during Detailed Design stage as well as updating during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification *MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2 of Appendix AA: Traffic Impact Assessment. Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include: <ul style="list-style-type: none"> ► ARTC will draft and finalise a Road Use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. ► Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ► ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	Appendix AA: Traffic Impact Assessment Section 5.2 Section 5.7 Section 6.2
159	159.0030	Local Government	Traffic and Transport		It is expected that the number of vehicle movements during operation of the Project will be very low relative to overall regional traffic volumes.	It should be noted that the life of the project is undefined and therefore there may be future impacts such as natural disaster recovery works and major replacement works over the life of the asset. The Proponent has understated potential impacts of the operational phase of the proposal. Therefore, it may not be accurate in dismissing operational impact. This issue should be reviewed in order to acknowledge future impacts that may be outside the control of the Proponent; however, the cost of operational impact should not be borne by the local community. The draft EIS and its proposed approval conditions should acknowledge possible future asset impacts over the entire life of the project.	Disaster recovery will be carried out in accordance with ARTC's Emergency Management Procedure (RLS-PR-004) which provides a work procedure for managing recovery from, and investigation of, emergencies requiring a significant and co-ordinated response on the ARTC Network. This procedure's objective is to ensure that ARTC and Rail Operators have established an integrated strategy for the response to the management of rail emergencies on the ARTC Network. This procedure includes the development of Incident Management Plans to address incidents such as; derailment and collision, fire and life safety, bomb threat, equipment, rollingstock or infrastructure failure, environmental issues, dangerous goods spill and natural disasters. The plans take into consideration; provision of resources, response in remote or difficult access locations, interfaces with other organisations and interfaces with relevant State DISPLAN related to incident management. With regard to the impact of recovery works on traffic and transport, specifically regarding the number of vehicles: Section 4.1 of Appendix AA: Traffic Impact Assessment discusses the development traffic within the Operations stage of the project. It is anticipated that the ongoing operation and maintenance of the Project will require a workforce of approximately 10 to 15 FTE. The operational workforce will be based at provisioning centres outside the immediate vicinity of the Project. It is assumed that minimal new trips will be generated as existing trips would be accounted for and the dispersed nature of these trips across the road network would have a minimal impact on road network operational performance. Therefore, a detailed analysis was not considered necessary as part of Appendix AA: Traffic Impact Assessment. During the Operations stage of the Project, it is anticipated that occasional access to and from the corridor will be required to conduct routine inspection and maintenance works. The existing road network will be used by maintenance crews to travel to the rail corridor. Once in the rail corridor, the RMAR incorporated into the design of the Project will be used in preference to the existing road network for Project maintenance activities. These activities are likely to be infrequent and the related traffic volumes are likely to be minimal with no envisaged impact to operational conditions of the surrounding road network. These traffic volumes are envisaged not to exceed 5 per cent of base conditions. Therefore, a detailed analysis was not considered necessary as part of Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 4.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0031	Local Government	Traffic and Transport	Level crossing	The ONRSR has undertaken a detailed audit of the reference design for the Project against the Rail Safety National Law (Queensland) Act 2017 (Qld) and the intent of the ONRSR Policy: Level Crossings (ONRSR, 2019a). This audit concluded that the reference design complies with the Rail Safety National Law and that the design minimises safety risks SFARIP. The Proponent has conducted, and will continue to undertake, consultation with DTMR and local governments in relation to the preferred road rail interface treatments for each location.	ARTC has identified that Kildonan Road and Millmerran Ingleswood Road should have active level crossings installed, rather than an anticipated grade separation. It is noted that Millmerran Ingleswood road is crossed three times and two of these crossings are grade separated. The crossing at reference point 31024-P-2 is an active crossing. GRC is not in agreement with this proposal and considers that consistency should reflect the State Government's Queensland Level Crossing Safety Strategy, Transport and Main Roads, July 2012 which has a key action Seek alternatives to the building of new level crossings. GRC requires the draft EIS to acknowledge that these two (2) roads interfaces, as a minimum, be Grade separated in accordance with the above State Government strategy. GRC requests alternative design consideration be given to reducing the three crossings of Millmerran Ingleswood Road to a single crossing.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides the Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>The Project alignment crosses Millmerran-Ingleswood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Ingleswood Road: <ul style="list-style-type: none"> ▶ Fewest farms affected mid-block ▶ Fewest farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewest residences within 200 metres. To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Ingleswood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests': <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apiaries permits, grazing leases and timber values with the forest. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Ingleswood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Ingleswood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Ingleswood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Appendix BT
159	159.0032	Local Government	Traffic and Transport		In consultation through the development of the reference design, DTMR requested that separation distances be sufficient to allow for storage of two 42.5 m A-triple vehicles. As discussed above, assessment of the existing road network indicates that 42.5 m A-triple vehicles do not use roads in proximity to the Project alignment; therefore, ARTC has retained a minimum separation distance of 49.5 m for the purpose of the reference design.	The issue of short stacking on local government roads should, to some degree, reflect the requirements of that of DTMR. While there is currently little demand on some of the GRC roads, future development of properties should not be restricted by the Proponent's proposed solution. Once the physical locations of alignment road and rail relative to each other are determined and constructed there is potentially no opportunity to rectify the situation into the future. The type of development on many of these roads will rely upon the use of productivity improvements in the heavy vehicle industry. Therefore, provision of short stacking should be further considered regarding its impact on local government roads. Without a definitive assessment, it is proposed that the short stacking distance in the draft EIS be the same as adopted for the DTMR network to avoid any restrictions of possible property developments into the future.	The revised reference design has been developed to prevent short stacking issues with the Project's alignment. Short stacking occurs when a long vehicle does not have enough space to completely clear a rail crossing and stops while part of the vehicle is still within the rail corridor. Short stacking issues have been avoided through development of the revised reference design by maintaining a minimum separation distance between the outer rail of the Project alignment and the centreline of the nearest parallel road, in accordance with Section 5.4 of AS 1742.7:2016 and with the Manual of Uniform Traffic Control Devices Part 7: Railway Crossings (DTMR, 2019b).	Appendix AA: Traffic Impact Assessment Section 5.2
159	159.0033	Local Government	Traffic and Transport		Although there is a change in the operational LOS for the above-mentioned roads, the expected operational LOS B and LOS C are considered acceptable given the short duration of the construction activities. The operational performance of each road would be expected to return to base conditions after construction is complete; therefore, based on the LOS comparison, it is expected that the Project would not generate the need to upgrade the road network for such a short duration of impact. Comment: The use of a level of service (LOS) methodology on low traffic rural roads with	The use of a level of service (LOS) methodology on low traffic rural roads with narrow and non-structural pavements does not predict the need to upgrade specific roads which will be used by heavy vehicles. Damage to the pavement may be substantial, particularly if the traffic movements coincided with wet weather. It is very likely that this circumstance may result in a one pass failure of the road pavement. The MIRDA is the mechanism to manage impacts to low traffic rural roads through the dilapidation assessment process.	The Level of Service (LOS) is a measure of the functionality of the road segment and does not take into consideration damage to the road. The metric is used to determine whether an upgrade to the road is required due to a failure to accommodate the volume of traffic that will use the road with a reasonable to delay to vehicles. In this case the road segments remain within acceptable limits of delay for road vehicles.	Appendix AA: Traffic Impact Assessment Section 5.6
159	159.0034	Local Government	Traffic and Transport		These upgrades are required only temporarily for construction traffic; therefore, discussions will be required with DTMR and local governments during the detail design phase to determine the permanence of such upgrades. Given the short duration of construction-related traffic, traffic management strategies may be introduced as an alternative to more permanent treatments in order to mitigate construction related traffic impacts at intersections.	GRC will require input to the projects traffic management strategies on an ongoing basis. Many of the intersections on the GRC road network that connect to the DTMR network have not been constructed to a standard that could accommodate the traffic type intended, however, the TMR/local government protocol for road management responsibility identifies the extent of intersection managed by DTMR as being to the tangent point on a local government road. GRC propose that the draft EIS should note the controlling authority on intersections and traffic management strategies; however, any damage to intersections should be rectified in accordance with the MIRDA principles.	Appendix AA: Traffic Impact Assessment, Section 5.4 and Section 5.5 discuss mitigation measures and make the commitment to ongoing discussion with both DTMR and local council depending on the governing road authority. However, prior to any mitigation measures being applied, it is recommended that the intersection delay and turn warrant assessments be revisited during the Detailed Design and Pre-Construction Activities and Early Works stages, when the contractors' construction program and construction routes are finalised. The agreed arrangements to manage the impacted infrastructure as a result of agreements between GRC and ARTC.	Appendix AA: Traffic Impact Assessment Section 5.4 Section 5.5
159	159.0035	Local Government	Traffic and Transport		An increase in the total vehicle and heavy vehicle movements on the existing road network has the potential to result in the accelerated degradation of the trafficable surface.	Pavement assessment was limited to state-controlled roads. Local government road network has narrow low strength pavements and are more likely to have adverse pavement impacts and should be mitigated. Depending on weather impacts it is possible to sustain a one pass pavement failure. Therefore, the local government road pavement impact should be addressed as well as state controlled roads. Dilapidation reporting mechanisms should be considered in order to assess the before and after impact to pavements in order to assess damage and the compensation to rectify that damage. Should the Proponent elect to contract the damage liability to the Principal Contractor, GRC will be exposed to the risk of negotiation therefore, GRC consider that the Proponent should be held ultimately responsible for the damage. As stated previously, an arbitration process is necessary in order to resolve disputes with the Proponent on resolution of these issues. The MIRDA mechanism should be acknowledged in the draft EIS as the process to undertake mitigation of traffic impacts.	Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts and highlighting mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. In the case of DTMR roads where marginal cost data was able to be provided, a further assessment of contributions was completed. In the case of Goondiwindi Regional Council (GRC) road, where suitable marginal data to assess required contributions could not be provided, ARTC is instead in ongoing discussions with the Road Manager, GRC, on pavement impact and road maintenance arrangements. The agreed arrangements to deal with impacted pavements as a result of agreements between GRC and ARTC.	Appendix AA: Traffic Impact Assessment Section 5.6
159	159.0036	Local Government	Traffic and Transport		The increase in construction traffic, particularly heavy vehicle traffic, has the potential to impact the journey time and safety of school bus routes.	The draft EIS has not identified the impact to the student bus transfers at the Yelarbon rest area. As it is proposed the rest area be utilised for a laydown area this issue will require a mitigation solution in the EIS.	Section 5.10.4 of the Appendix AA: Traffic Impact Assessment discusses the impacts on school bus services. The potential impacts to school bus services due to the upgrade of existing, or introduction of new road-rail intersection for the Project are discussed in Table 5.114.	Appendix AA: Traffic Impact Assessment Section 5.10.4 Table 5.114
159	159.0037	Local Government	Traffic and Transport		Some of the proposed construction routes are aligned through areas of moderate-to-high pedestrian activity through the areas surrounding the towns of Yelarbon, Ingleswood, Millmerran, Brookstead, Pittsworth and Toowoomba. Significant increases in heavy vehicle movements through these locations may adversely impact pedestrian movements; however, most of these routes are currently facilitating a high proportion of heavy vehicle movements (refer Table 18.27). Therefore, the addition of construction traffic to these routes is unlikely to result in a significant increase in risk to pedestrians	The construction activity and resulting heavy vehicle movements in and around Yelarbon is significant in comparison to the current level of heavy vehicle movements. The use of the rest area as a laydown area and the construction of the high embankment for the grade separated crossing and the modification to the levee will require additional bulk haulage. The EIS should identify mitigation measures to avoid the impacts to pedestrians in the Township of Yelarbon. Similarly, reference designs do not provide a solution for a pedestrian crossing of the alignment within Yelarbon and GRC requests the Proponent be conditioned to provide a compliant solution for a pedestrian crossing within Yelarbon.	In response to consultation, it is no longer proposed to use the Yelarbon rest area as a laydown area for Project construction activities. As addressed in Appendix AA: Traffic Impact Assessment, Section 2.16, it is acknowledged that a number of the proposed construction routes currently traverse through areas of moderate to high pedestrian activity through Toowoomba, Millmerran, Ingleswood and Yelarbon. The roads in these areas already currently facilitate a high proportion of HV movements. The pathway network for Goondiwindi Region has been provided by GRC for the purpose of the Project. This pathway network is adjacent to roads used by construction routes through Yelarbon and Ingleswood, in the following locations: <ul style="list-style-type: none"> ▶ Cunningham Highway through Yelarbon, between Wyemo Street and Wondalli Street ▶ Gore Highway through Ingleswood, between Macintyre Brook and Ingleswood Multipurpose Health Service ▶ Elizabeth Street through Ingleswood, between Gore Highway and Great Road Street Importantly, as outlined in Appendix AA: Traffic Impact Assessment, Section 5.2, construction traffic on routes with significant cyclist or pedestrian activity will be restricted to only essential movements during peak active transport periods. Further measures may include measures such as signage or protection on construction routes with a high proportion of cyclists or pedestrians, employing contractor driver briefings on safe driving to avoid active transport users and community notifications. Once a construction contractor is appointed, construction routes and vehicle numbers are finalised, specific measures to mitigate impacts to active transport users will be required to be developed for the construction routes on a case-by-case basis. This is to minimise construction vehicles through areas of higher pedestrian or cyclists' activity, such as schools or town centres, in peak periods will reduce the impact and potential safety issues.	Appendix AA: Traffic Impact Assessment Section 2.16 Section 5.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0039	Local Government	Traffic and Transport		During construction and operation, response times for emergency services may be delayed if they encounter significant roadworks or passing trains at level crossings. ARTC will work with the relevant emergency services agencies (e.g. Queensland Fire and Emergency Service (QFES), Queensland Ambulance Service (QAS) and Queensland Police Service (QPS)) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required.	The closure of a road either temporarily or permanently is a high risk for emergency response. Consideration should be given to utilising both Council and TMR road closure internet systems for notifications such as the QLD Traffic App. The draft EIS should include road authorities in the road closure arrangements with emergency services.	<p>An assessment of potential delays to road traffic at level crossing was undertaken as detailed in EIS Appendix AA: Traffic Impact Assessment, Section 5.8 and 5.9. The modelling undertaken within this assessment provides an accurate representation of the impacts to vehicles, using traffic vehicle numbers and the calculated wait times for specific level crossings.</p> <p>All active level crossings have been analysed in the peak periods, accounting for the individually calculated wait times, in order to determine queue lengths and resultant impacts to traffic. Table 5.69 in Appendix AA: Traffic Impact Assessment provides the individual wait times for the level crossing locations along the alignment. The wait times determined for each individual level crossing were calculated based on;</p> <ul style="list-style-type: none"> ▶ Level crossing specific operating speeds (up to maximum design speed of 115 km/hr). The operating speed is impacted by topography and curvature of the alignment ▶ Time taken for the train to cross the level crossing ▶ Distance from train crossing loops and hence time taken for the train to accelerate from standstill. ▶ Train length ▶ Boom gate and signal operating times <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensure that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution and any road closures either permanently or temporarily. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9
159	159.0040	Local Government	Traffic and Transport		Grade-separated crossings of existing roads have been adopted instead of level crossings, where possible. The specific design treatment at each road-rail interface has been selected based on a combination of factors, which include: <ul style="list-style-type: none"> ▶ Topography ▶ Road classification ▶ Rail geometry ▶ Road geometry ▶ Community and stakeholder feedback through consultation 	GRC consider the rail road interface at Kildonan Road and Millmerran Inglewood Road should provide grade separation as per the above mitigation measure. These roads are considered to be highest order components of the road network within the Goondiwindi Region. Given the expectation of the community that the road network should be fit for future purpose upon completion of works, the grade separated outcome should be provided as part of this project. The draft EIS should have a clear mechanism for assessment of the road rail interface and require grade separation at interfaces on Kildonan Road and Millmerran Inglewood Road.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>Regarding the level crossing at Millmerran Inglewood Road:</p> <p>The Project alignment crosses Millmerran-Inglewood Road three times due to road geometry complexities and its interface with Commodore Mine. ARTC alignment studies revealed significant stakeholder benefits on the eastern side of Millmerran-Inglewood Road:</p> <ul style="list-style-type: none"> ▶ Fewest farms affected mid-block ▶ Fewest farm operations/dwellings within 200 metres of alignment ▶ No direct impacts to feedlots ▶ Fewest residences within 200 metres. <p>To achieve these benefits, ARTC selected the most technically optimal crossing location to minimise the skew angle and operational construction impacts to Millmerran-Inglewood Road. This crossing location minimises impacts to Bringally State Forest, as it's located on the eastern edge avoiding severing and thus fragmenting the State forest. Furthermore, the alignment minimises, and reduces State forests':</p> <ul style="list-style-type: none"> ▶ Restriction of access ▶ Loss of flora and fauna ▶ Changes to bushfire management ▶ Weeds and pests ▶ Changes to drainage and minimising sediment and erosion ▶ Changes to interests on the State forests e.g. apianies permits, grazing leases and timber values with the forest. <p>Appendix AA: Traffic Impact Assessment, Section 3.7 discusses the reference design reviews and updates at the proposed Millmerran Inglewood Road at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Inglewood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Inglewood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Inglewood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Inglewood Road, at Inglewood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Appendix AA: Traffic Impact Assessment Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Inglewood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to affect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR and local council as detailed design progresses regarding the proposed level crossing design solution.</p> <p>Regarding the level crossing at Kildonan Road:</p> <ul style="list-style-type: none"> ▶ Appendix AA: Traffic Impact Assessment, Section 3.7.7 discusses the reference design reviews and updates at the proposed Kildonan Road at grade active level crossing. ARTC have worked closely with GRC as part of the design process, particularly regarding inputs into the assessment. GRC provided their own traffic count information which formed the baseline of the assessment. From a future proofing perspective, ARTC use 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by council and factor in the known developments in this area. ▶ The traffic and transport assessment showed that even if Kildonan Road peak hourly volumes were doubled, it would remain as a LOS A (see definition in Section 5.5.1). This is also a reflection of the relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. ▶ ARTC, in collaboration with GRC, explored other design options for Kildonan Road including grade separation. This location did not meet the automatic grade separation criteria detailed in the Public Level Crossing Treatment Methodology (provided in Appendix BT), including topography-based criteria, nor any other metrics triggering an automatic grade separation. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope, as the cost to grade separate is grossly disproportionate to the benefits. ▶ The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the AS1742.7-2016. All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles. ▶ ARTC will continue to work collaboratively with GRC as detailed design progresses regarding the proposed level crossing design solution. 	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 3.7.7 Section 5.5.1 Section 5.8 Section 5.9 Appendix BT
159	159.0041	Local Government	Traffic and Transport	Road safety	A Traffic Management Sub-plan will be prepared prior to the commencement of construction, as a component of the CEMP, as a joint effort between the Principal Contractor, ARTC, DTMR, QR, local governments and an accredited road safety auditor once preferred construction routes are confirmed.	GRC notes that the Principal Contractor will be a party to the Traffic Management Sub Plan and while this is appropriate, the heads of agreement in delivering the project should remain between ARTC and GRC. The MRDA has a mechanism for transferring local government requirements to the principal contractor and the draft EIS should acknowledge this process.	<p>Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts and highlights mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. In the case of DTMR roads where marginal cost data was able to be provided, a further assessment of contributions was completed. In the case of Goondiwindi Regional Council (GRC) road, where suitable marginal data to assess required contributions could not be provided, ARTC is instead in ongoing discussions with the Road Manager, GRC, on pavement impact and road maintenance arrangements. The agreed arrangements to deal with impacted pavements as a result of construction will be contained within agreements between GRC and ARTC.</p> <p>ARTC will consult with relevant stakeholders (including directly affected landowners) during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works, as well as agreed contribution towards the consumption of pavement design life by construction related vehicles. Once the Contractor has prepared further plans and chosen their preferred design vehicle, these swept path assessments will be revisited to determine any temporary or permanent changes to the existing layout which may be required to accommodate construction traffic movements, such as road upgrades, localised lane widening, geometric improvements or removal of signage and lighting. ARTC commits that these mitigation measures will be further discussed and agreed with the relevant road authorities and include as part of the road manager agreements. ARTC has also committed to maintaining connectivity of existing on and off road pedestrian/shared user facilities.</p> <p>Further, Appendix AA: Traffic Impact Assessment Section 5.12.3 details ARTC commitments to a Construction Environmental Management Plan and Traffic Management Plan. A CEMP will be prepared prior to construction commencing by the construction contractor. The CEMP will include a TMP, attached as an Appendix to the CEMP. The TMP will reflect the finalised TIA, undertaken once a construction contractor has been appointed and construction routes are finalised. It will be developed in consultation with DTMR, the relevant LGA, Department of Education, affected stakeholders and an accredited road safety auditor. The plan will also take into account communications received and will be aligned with the Construction Community and Stakeholder Management Plan. The TMP will identify the impacts that construction traffic is likely to have on the transport infrastructure and detail ameliorative measures required to mitigate all identified impacts of the Project. This may include potential temporary or permanent intersection works. The TMP will detail measures to:</p> <ul style="list-style-type: none"> ▶ Safely manage traffic when undertaking works in the road reserve ▶ Minimise traffic delays resulting from the development/construction ▶ Manage construction vehicles entering and exiting the site ▶ Maintain satisfactory property access ▶ Minimise disruption to adjacent properties ▶ Minimise disturbance to the environment ▶ Meet the requirements of legislation and codes of practice regarding traffic management ▶ Cater for special events <p>Finally, ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 5.6 Section 5.12.3
159	159.0042	Local Government	Traffic and Transport	Construction traffic	Identify secondary, alternative construction routes, in the event of the primary route is blocked off by an emergency/accident.	Any use of alternative construction routes should be agreed with GRC prior to the Traffic Management Sub Plan being agreed to and duration of use of the alternative to be limited. The same conditions should apply to alternative routes as to the agreed construction routes. The draft EIS should reference consultation with local government on possible alternative routes in order to avoid an emergency situation where the alternative route may not be suitable under specific circumstances.	<p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ▶ ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. ▶ Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ▶ ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	Appendix AA: Traffic Impact Assessment Section 6.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0043	Local Government	Traffic and Transport		A Road Use Management Plan (RUMP) will be prepared for the Project in accordance with the GTIA to support works to the existing road network (refer Figure 18.5). The purpose of developing the RUMP for the Project will be to: identify, where required, appropriate traffic and transport management strategies for the use of the State-controlled roads and local government roads for each of the construction stages of the Project. Minimise the impact on the efficiency of road networks.	As commented above the GTIA does not have relevance to lower order local government roads. The preparation of a RUMP is supported, provided there is a relevant mechanism to reflect on impacts to local government roads. While the RUMP will assist in mitigation of road impacts, GRC has concerns with the geometrical design of the State controlled road on the approaches to Yelarbon. The horizontal alignment on the eastern approach results in a frequent truck roll over crashes. Constructing the same arrangements on the western approach potentially creates the same issue. While this is a matter for the Department of Transport and Main Roads, Council is concerned for the safety of the local community and the impact on the local Emergency Services. The draft EIS should acknowledge the integration of the RUMP with the MIRDA.	Whilst it is acknowledged that the submission references the non-applicability of the GTIA to lower order council roads it is key to note that every road section, intersection, road-rail interface and access used for construction routes has been analysed for functionality (Appendix AA: Traffic Impact Assessment Section 5.3, 5.4, 5.5, 5.8, 5.9), for safety impacts (Appendix AA: Traffic Impact Assessment Section 5.2, 5.3, 5.4, 5.8, 5.9) and for road damage (Appendix AA: Traffic Impact Assessment Section 5.6, 5.7), with mitigation measures provided in each case. With specific regard to safety, on each road section, the road horizontal and vertical alignment has been checked against governing requirements and sight distance checks, crash analysis, queuing analysis, turn warrant assessments, and site visits have been completed. As mentioned in the submission, in Appendix AA: Traffic Impact Assessment, Section 6.2, ARTC has committed to: <ul style="list-style-type: none"> ▶ Draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. ▶ Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ▶ Consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. With specific regard to the safety of the eastern approach on the Cunningham Highway entry into Yelarbon, there are no recorded crashes, or any record of truck roll over crashes on this Section of road. All road design arrangements have been designed in accordance with relevant road design guidelines and standards (Austroads, DTMR, Australian Standards) where required.	Appendix AA: Traffic Impact Assessment Section 5.2 Section 5.3 Section 5.4 Section 5.5 Section 5.6 Section 5.7 Section 5.8 Section 5.9 Section 6.2
159	159.0044	Local Government	Traffic and Transport		For sealed local government roads, a condition assessment will be conducted (e.g. National Association of Australian State Road Authorities roughness count) prior and post construction activities, as well as at annual intervals during construction. For unsealed local government roads, a visual condition will be conducted (either manual or vehicle mounted high speed condition survey) prior to and post construction activities. The scope for pavement assessments of unsealed local government roads will be agreed with relevant local governments before construction commences. The scope and frequency of pavement condition assessments that are to be required during the construction period will be documented in the RUMP.	This mitigation measure supports the failure of the GTIA process and to reflect the need for management of impacts to lower order local government roads. GRC supports the approach, provided there is an arbitration process should a dispute occur over both the damage incurred and the level of compensation. This mitigation measure is referenced in the MIRDA and therefore the draft EIS should acknowledge the process.	The Level of Service (LOS) is a measure of the functionality of the road segment and does not take into consideration damage to the road. The metric is used to determine whether an upgrade to the road is required due to a failure to accommodate the volume of traffic that will use the road with a reasonable to delay to vehicles. In this case the road segments remain within acceptable limits of delay for road vehicles. With regard to pavement damage Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts highlights mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. As a result, ARTC is in ongoing discussions with the submitter and Road Manager, Goondiwindi Regional Council (GRC), on pavement impact and road maintenance arrangements. The agreed arrangements to deal with impacted pavements as a result of construction will be within the agreement between GRC and ARTC. ARTC will consult with relevant stakeholders (including directly affected landowners) during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works, as well as agreed contribution towards the consumption of pavement design life by construction related vehicles. Once the Contractor has prepared further plans and chosen their preferred design vehicle, these swept path assessments will be revisited to determine any temporary or permanent changes to the existing layout which may be required to accommodate construction traffic movements, such as road upgrades, localised lane widening, geometric improvements or removal of signage and lighting. ARTC commits that these mitigation measures will be further discussed and agreed with the relevant road authorities and include as part of agreements. ARTC has also committed to maintaining connectivity of existing on and off road pedestrian/shared user facilities. Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.	Appendix AA: Traffic Impact Assessment Section 5.6
159	159.0045	Local Government	Traffic and Transport		Construction works cannot commence within a State-controlled road corridor without written approval from DTMR. This will be required to be obtained through consultation with DTMR during the detail design phase of the Project.	This requirement should also apply to local government roads. GRC has a permit system that will apply to works within a road reservation. The draft EIS should acknowledge the same requirement for local government approval processes.	The revised draft EIS has incorporated additional wording for local government roads in Appendix AA: Traffic Impact Assessment Table 5.11 and 5.52. The amended wording now reads: "Construction works cannot commence within a SCR corridor without written approval from DTMR, or within a Local-government road corridor without necessary approvals from the relevant local council. These will be required to be obtained through consultation with DTMR and the relevant local councils during the Detailed Design stage of the Project."	Appendix AA: Traffic Impact Assessment Table 5.11 Table 5.52
159	159.0046	Local Government	Traffic and Transport		There is potential for construction traffic for both projects to use roads on the Queensland side of the Macintyre River (e.g. Kildonan Road, Wondall-Kurumbul Road).	The material supply to both the NS2B and B2G will have an associated impact on the local road network. Should concrete supply be from the same supplier in Goondiwindi, then adverse impacts to the road network should be considered based on the cumulative impact from the overall inland rail project and not two (2) single projects. Therefore, it is likely that the Proponent should pay compensation to GRC for asset life impacts of the road network. The MIRDA includes the NS2B Section that is located in Queensland, however, material supply into New South Wales for the balance of this NS2B Section will have a cumulative impact in terms of road asset consumption. This issue should be addressed in the draft EIS.	The revised draft EIS Appendix AA: Traffic Impact Assessment Section 5.11, address cumulative impacts, including the cross over between multiple Inland Rail packages. To enable stakeholders to make informed decisions, consideration has been given to the potential impacts of other major projects in the area to ensure that the combined impacts of the Project are accounted for. It is a requirement of the ToR for this Project that the potential for cumulative impacts be considered. Projects with spatial and/or temporal overlap can result in cumulative impacts. A quantitative cumulative impact assessment has been undertaken considering the complete Inland Rail construction from North Star to Border to Kagaru to Acacia Ridge/Bromelton. The study area considers the overlap of other Inland Rail packages with the proposed the Project construction routes across the complete construction timeframe over the 6 packages. Key assessments influenced by volumes have been reassessed as part of the cumulative impact assessment, including the: <ul style="list-style-type: none"> ▶ Road safety assessment ▶ Intersection assessment ▶ Road link capacity assessment ▶ Pavement assessment. For the safety, intersection, and road link capacity assessments, analysis was undertaken where peak hour volumes experienced a change. All road links and intersections with no volume change are considered to be assessed in the 'Project only' assessment covered in the previous sections of the Appendix AA: Traffic Impact Assessment. This was considered appropriate as without a change in peak hour volumes between 'Project only' and the cumulative assessment, the intersections and road links impacts are considered identical. Regarding the overlap on GRC roads between the Border to Gowrie construction routes and North Star to NSW/QLD border construction routes: There is no longer any overlap between the construction routes of the two packages. If, in the Detailed Design stage, the construction routes change from either of the two projects such there is a cumulative impact on the road network of any governing authority then all assessments on those roads will be recompleted with cumulative volumes. ARTC will consult with relevant stakeholders (including directly affected landowners) during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works, as well as agreed contribution towards the consumption of pavement design life by construction related vehicles. Once the Contractor has prepared further plans and chosen their preferred design vehicle, these swept path assessments will be revisited to determine any temporary or permanent changes to the existing layout which may be required to accommodate construction traffic movements, such as road upgrades, localised lane widening, geometric improvements or removal of signage and lighting. ARTC commits that these mitigation measures will be further discussed and agreed with the relevant road authorities. ARTC has also committed to maintaining connectivity of existing on and off road pedestrian/shared user facilities. Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.	Appendix AA: Traffic Impact Assessment Section 5.11
159	159.0047	Local Government	Traffic and Transport	Level crossing	Grade separated crossings of existing roads have been adopted instead of level crossings, where feasible. The specific design treatment at each road-rail interface has been selected based on a combination of factors, which include: Topography Road classification Rail geometry Road geometry Community and stakeholder feedback through consultation.	The statement noting where feasible is not accurate. Grade separation crossings are physically feasible in some cases however, the Proponent has elected to provide level crossings based clearly on project economics almost entirely. The draft EIS should acknowledge this issue of road and rail interfaces in order to clearly state the Proponent's intention on grade separation, grade crossings and their potential risk.	ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland: <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments. The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs. For more information, please also refer to IR Level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet .	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Appendix BT
159	159.0048	Local Government	Hazard and Risk	Flood immunity	Modification of the existing Yelarbon levee may be the preferred design solution to avoid worsening of hydrological conditions in the Yelarbon area. If this solution is confirmed as preferred through detail design, the design requirements for modifying the existing Yelarbon levee will be confirmed through further consultation with GRC. It is anticipated that the modified levee would be considered a Category 2 levee (Schedule 10 of the Water Regulation 2016), and a waterway barrier, requiring a development approval under the Planning Act 2016 (Qld).	GRC have concerns on the assessment of the categorisation of the modifications. Council has assessed the levee as category 3 due to the population at risk. EIS conditions should include this requirement in any approval in order for the Proponent to undertake modification in accordance with requirements.	This issue is noted. Chapter 3: Legislation and Project Approvals Process has been amended to ensure levee modification is referred to as a Category 3 activity (Section 3.435, Chapter 3: Legislation and Project Approvals Process). Development approval for the modification of Yelarbon Levee will be obtained prior to commencement of construction and any modification works (Section 14.9.1, Table 14-121 of Chapter 14: Flooding and Geomorphology).	Chapter 3: Legislation and Project Approvals Process Section 3.435 Chapter 14: Flooding and Geomorphology Section 14.9.1 Table 14-121
159	159.0049	Local Government	Flooding	Flood immunity	Construction tasks will be scheduled to avoid, where possible, bulk earthwork activities within the 1% AEP during periods of elevated flood risk. Where works cannot be scheduled outside of this time period, activity-specific flood readiness and response planning will be required. This planning will be developed in consultation with the relevant local government and QFES. ARTC will engage with the local disaster management groups for Toowoomba and Goondiwindi to coordinate appropriate incident management and response procedures for natural disasters, including flooding.	It is noted that the Proponent will engage with local disaster management groups on readiness and response. Given that construction activity will increase the risk of flooding impact, engagement should be during preconstruction phase and procedures should be referenced in construction contracts. Any damages should be included in the liability in the contract. The draft EIS should be modified to ensure that engagement with local disaster management groups occurs at the preconstruction phase. Further response to natural flooding concerns will be provided in addition to this submission.	Chapter 24: Draft Outline Environmental Management Plan has been updated to state: "ARTC will engage with the local disaster management groups for Toowoomba and Goondiwindi to coordinate appropriate incident management response procedures for natural disasters, including flooding" as a pre-construction measure."	Chapter 24: Draft Outline Environmental Management Plan
159	159.0050	Local Government	Flooding		Inspections will be carried out during operations to identify defects and conditions that may affect waterway and drainage system capacity or indicate increased risk of flooding, such as: Scour Blockages due to debris build up Indication of floods overtopping a structure Culvert or drain damage or collapse. Where defects are identified and corrective actions are required, these works will be completed in accordance with the Operation EMP for the Project Asset inspections will be completed as soon as safe access can be achieved following a flood event	Culvert design should include an allowance for a partial blockage of the structure. Failure to inspect and maintain the waterway area, which may cause impact, should be considered as a breach of EIS conditions and the Proponent be subject to compensation for any damages caused by lack of operational neglect. EIS conditions should enforce that the Proponent meets design capacity of the culverts including blockage in accordance with industry standards.	An allowance for blockage was included in the reference design and revised draft EIS for all culverts with an assumed 25% blockage factor, following an assessment that was undertaken in line with Australian Rainfall and Runoff guidelines. In addition, a sensitivity analysis was undertaken with 0% and 50% blockage to gain an understanding of potential impacts on Flood Sensitive Receptors for these additional blockage scenarios (detailed for each catchment section, Sections 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). With respect to ongoing maintenance of culverts ARTC, as the operator of Inland Rail will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed design subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 5-17
159	159.0051	Local Government	Hazard and Risk		Procedures for the management of hazardous chemical spills and leaks will be developed and incorporated into the Operation EMP for the Project	The Proponent should consult with local disaster management groups on procedures and their response to high impact hazardous material incidents which may require activation of the group following an incident. This requirement should be included in the revised draft EIS.	Commitments to consultation with relevant local disaster management groups is provided in Section 21.6.2 Table 21-16 and Section 21.6.2.1 of Chapter 21: Hazard and Risk of the revised draft EIS.	Chapter 21: Hazard and Risk Section 21.6.2.1 Section 21.6.2 Table 21-16

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0052	Local Government	Hazard and Risk	Level crossing	The risk assessment has been assessed in the Operation phase in terms of Likelihood/consequences "Risk for accidents on road/rail interfaces as: Likely/major "Very High and after mitigation Possible/Major" Medium.	The risk assessment has been assessed in the operation phase in terms of Likelihood/consequences "Risk for accidents on road/rail interfaces as: Likely/major. "Very High and after mitigation Possible/Major" Medium.	The revised draft EIS and reference design has been updated since the submission of the draft EIS. The main overarching principles that were applied in positioning the alignment for the revised reference design include: Alignment shift to reduce the number of road-rail interfaces. <ul style="list-style-type: none"> ▶ Maximise the use of existing rail corridors ▶ Outside of existing rail corridors, seek to maximise co-location with existing linear transport infrastructure ▶ Minimising severance to properties in greenfield areas ▶ Lessening impact to landowners, businesses and existing infrastructure As outlined in Table 21-15 (Section 21.6.1) Chapter 21: Hazard and Risk, grade separated crossings of existing roads have been adopted instead of level crossings, where feasible. The specific design treatment at each road-rail interface has been selected based on a combination of factors outlined in Appendix AA: Transport Impact Assessment (Appendix BT: Inland Rail Road Rail Interface Methodology). Where grade separation has not been feasible, the design has been developed in accordance with ARTC standard Section 12: Level Crossings (ARTC, 2023). Additional physical controls at level crossings such as boom gates and warning lights are provided in accordance with the code of practice. Level crossings have been subject to safe design studies and risk assessments in accordance with the Australian Level Crossing Assessment Model (ALCAM, 2016) to identify and reduce, as far as practicable, the potential risks associated with these crossings. As outlined in Table 21-16 (Section 21.6.2) Chapter 21: Hazard and Risk, mitigation measures incorporated into design may include active controls (e.g. flashing lights and boom gates) and/or passive controls or treatments (e.g. signage and pavement marking) in accordance with the Guide to Development in a Transport Environment: Rail (DTMR, 2015) and AS 1742.7—Manual of uniform traffic control devices, Part 7: Railway crossings (Standards Australia, 2016) to reduce the likelihood and impact of road-rail collisions. Such measures will be implemented in conjunction with the road asset owner (i.e. DTMR and private owners). Also included in detailed design is appropriate exclusion fencing which is required near roads or where trespass is likely to occur, to reduce the likelihood of trespasser injury or death from rail collision. Specific fencing requirements are to be agreed through discussion with adjoining landowners and asset owners through the design development. The general fencing strategy for the Project is provided in Section 5.4.12 of Chapter 5: Project Description. The risk likelihoods have been re-assessed for the revised draft EIS according to changes in revised reference design. Chapter 21: Hazard and Risk Table 21-17 (Section 21.7) details the impact assessment for risk likelihood of road accidents on road-rail interfaces. For pre-construction and early works and construction works, the initial risk Likelihood/Risk of Possible/High which is reduced to Unlikely/Medium with the implementation of safety and mitigation measures.	Chapter 5: Project Description Section 5.4.12 Chapter 21: Hazard and Risk Section 21.6.1 Table 21-15 Section 21.6.2 Table 21-16 Section 21.7 Table 21-17 Appendix AA: Transport Impact Assessment Appendix BT
159	159.0053	Local Government	Hazard and Risk	Level crossing	The residual risk of the road/rail interface remains at medium level.	This is not considered correct as the likelihood is possible and the consequences remain major, therefore, the risk is high. The risk treatment should be readdressed. The revised draft EIS should address this error in the risk assessment and consider an appropriate risk treatment and control.	The residual risk of accidents at road-rail interfaces has been reassessed for the revised draft EIS. As an outcome of this reassessment, the likelihood of occurrence of an accident at a road-rail interface has been reduced from 'possible' (every 1-5 years) to 'unlikely' (every 5-20 years) in Section 21.7 (Table 21-17) of Chapter 21: Hazard and Risk. This reduction in likelihood of occurrence has been made on the basis that the number of level crossings has been reduced from 37 in the reference design to 27 in the revised reference design (Table 21-8). As part of this reduction, the number of passive level crossings has been reduced from 20 in the reference design to 7 in revised reference design.	Chapter 21: Hazard and Risk Section 21.7 Table 21-17 Table 21-8
159	159.0055	Local Government	Waste and Resource Management	Aquatic fauna	Describes baseline conditions of the impact assessment area and assesses potential waste impacts associated with the B2G project.	Waste facilities within the proximity of the project area within GRC boundaries include: 1. Goondiwindi Transfer Facility and Landfill 2. Yelarbon Landfill 3. Inglewood Landfill It should be noted that Yelarbon and Inglewood are transfer stations and not landfills with the exception that commercial waste is accepted at Inglewood one day per week. This should be amended in the draft EIS. No waste facilities have been specifically identified as potential spoil disposal sites for the Project and it is expected that soil will be reused on site, the Proponent should identify facilities that can take soil as a contingency plan if soil disposal is required. It is anticipated that waste volumes generated during construction will not be significant, therefore traffic impacts have not been assessed. The Proponent should keep accurate records of waste volumes to ensure that volumes remain within accepted standards. The draft EIS has stated that consultation with owners and operators of existing waste management facilities has commenced. It is understood this is not the case for facilities within GRC. Waste disposal by the proponent to Council waste sites requires approval of GRC. Any large volumes of waste may be redirected to alternative sites so as to not impact on waste management sites. Payment of applicable disposal fees should be made to GRC by the Proponent and its contractors for waste accepted at the GRC waste facilities. The Spoil Management Strategy will be finalised prior to the commencement of construction and this should be reviewed by interested parties. The draft EIS has stated that a Waste Management Sub-plan will be developed as a component of the Construction Environmental Management Plan (CEMP), it is to be ensured that this is made available for review by GRC. The draft EIS states that cleared vegetation will be re-used on site. The Proponent should ensure that any restricted weed material is separated and disposed of accordingly. Restricted materials should not be reused on site. These above waste facility matters should be reviewed in the draft EIS.	Chapter 22: Waste and Resource Management, outlines the ability of waste management facilities listed in Table 22-3 to receive wastes generated by the Project. This has been determined based on initial consultation with select operators, a review of environmental authority/licencing under the EP Act and consideration of the Project's contribution to the regional waste management network. A summary of the waste management facility consultation can be found in Section 22.4.2 of Chapter 22: Waste and Resource Management and Appendix E: Consultation Report. Table 22-9 Mitigation Measures for Waste Management details the further engagement that will be undertaken with owners and operators of licenced waste disposal facilities and licenced waste carriers in the Detailed Design stage when more detailed information of waste streams is available. Chapter 11: Flora and Fauna, Project Impact Mitigation Measures details that a Biosecurity Management Plan will be developed as a component of the Construction Environmental Management Plan (CEMP). This will include property-specific weed hygiene requirements developed in consultation with the relevant landowners/operators prior to pre-construction/construction activities occurring on that property. Protocols, where agreed, will be documented in individual property management agreements.	Chapter 11: Flora and Fauna Section 11.6.7 Chapter 22: Waste and Resource Management Section 22.4.2 Table 22-3 Table 22-9 Appendix E: Consultation Report
159	159.0056	Local Government	Approvals/ conditions/ recommendations	Cumulative impacts	This Chapter provides a summary of the cumulative impact assessment undertaken for the Project. Projects with spatial and/or temporal overlap can result in cumulative impacts.	Adequately addresses cumulative impacts based on current knowledge of surrounding projects. This Chapter should be updated if new information arises	The issue is noted. Chapter 23: Cumulative Impacts has been updated within the revised draft EIS.	Chapter 23: Cumulative Impacts
159	159.0057	Local Government	Outline EMP		This Chapter provides an environmental management framework to enable the identified environmental and social outcomes to be achieved.	This plan is in a draft stage and should be amended when new information arises.	The Draft Outline Environmental Management plan will be further refined in detailed design and must be reviewed and endorsed by the Environmental Monitor.	Chapter 24: Draft Outline Environmental Management Plan
159	159.0057	Local Government	Flora and Fauna		Field surveys were taken during drought conditions and therefore may not be a representative of periods of average or above average rainfall. Aquatic samples sites are all located within a 2 km buffer of the proposed alignment, further sampling will be required if access tracks/construction camps extend beyond this alignment. The Proponent should ensure that mitigation measures to prevent the spread of aquatic weeds are implemented and accurately detailed in the CEMP. Sediment runoff into water courses and introduction of contaminants into waterways has the potential to impact landowners in the surrounding areas. Proponent should ensure that mitigation measures are appropriately implemented. These above aquatic ecology matters should be reviewed in the draft EIS.	This technical report has been prepared to document aquatic ecology and surface water quality investigation for the project.	Additional fieldwork to ground-truth the Project disturbance footprint has been undertaken to document the extent of significant ecological receptors, including aquatic values since the draft EIS was released for public notification. This includes areas not previously subject to field validation in the draft EIS and the use of an eDNA assessment. This data has been incorporated into the revised draft EIS and will inform the final impact assessment. See Chapter 11: Flora and Fauna. The survey reports for these fieldworks are available in Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 7 Appendix A
159	159.0058	Local Government	MNES		The report adequately addresses MNES. Additional surveys to verify TECs, etc., will be implemented during the design phase.	n/a	ARTC acknowledges Goondiwindi Regional Council's acceptance for the adequacy of Appendix O: Matters of National Environmental Significance Report. Additional Fieldwork has been undertaken across the entire project footprint to inform the revised draft EIS and their reports are presented in Appendix O: Matters of National Environmental Significance Report. Chapter 11: Flora and Fauna, and Appendix O: Matters of National Environmental Significance Report, have been updated to reflect the outcomes of the most recent fieldwork. The impact assessment and mitigation measures presented in the reports have been informed by this work and specific management measures have been developed for impacted environmental values.	Chapter 11: Flora and Fauna Appendix O: Matters of National Environmental Significance Report
159	159.0058	Local Government	Flora and Fauna		This technical report (APP J) describes the terrestrial ecological values of the impact assessment area and identifies potential impacts to sensitive environmental receptors	BioCondition assessments were omitted from the surveys due to drought conditions, therefore certain habitat and vegetation condition data cannot be obtained. Report does not clearly state whether the Regional Ecosystems (REs) were ground truthed or not (Table 3.2 only states that REs were identified). Further ecological surveys will be undertaken during the detail design phase of the Project as the disturbance footprint is refined to reflect the detail design and adopted construction methodology. The Project is likely to cause a significant residual impact on Cyperus clausus, Digitaria Porrecta and Picris barbarorum. These have not been identified in the offsets strategy (Appendix N). The Proponent should provide detail of the types and scale of proposed ecological surveys of the Project footprint during development of detailed design. These above terrestrial ecological matters should be reviewed in the draft EIS.	ARTC acknowledges Goondiwindi Regional Council's acceptance for the adequacy of Appendix O: Matters of National Environmental Significance Report. Additional Fieldwork has been undertaken across the entire project footprint to inform the revised draft EIS and their reports are presented in Appendix O: Matters of National Environmental Significance Report. Chapter 11: Flora and Fauna, and Appendix O: Matters of National Environmental Significance Report, have been updated to reflect the outcomes of the most recent fieldwork. The impact assessment and mitigation measures presented in the reports have been informed by this work and specific management measures have been developed for impacted environmental values.	Chapter 11: Flora and Fauna Appendix O: Matters of National Environmental Significance Report

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159	159.0059	Local Government	Flora and Fauna		Adequately addresses fauna fencing and additional landowner consultation requirements such as stock route crossings and the impacts to private fencing.	This Chapter identifies fauna corridors that the Project crosses and nominates the optimal locations for fauna.	<p>In terms of fencing design, for interfaces along the alignment, Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16 notes that 'Specific fencing requirements are to be agreed through discussion with adjoining landowners and asset owners through the design development.' There are various types of fencing that will be required. ARTC has standard drawings for the various types of fences. These eleven standards can be found on the ARTC website at extranet.artc.com.au/eng_track-civil_drawings.html.</p> <p>As there are various standards depending on the type of fence, it is not proposed to list these standards. Typically not all design standards have been listed.</p> <p>Since the submission of the draft EIS, ARTC has developed Appendix P: Fauna Connectivity Strategy to support the revised draft EIS. This document will be standalone Appendix for the revised draft EIS and was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>The Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010 respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.</p> <p>In the revised reference design ARTC have updated stock route interface designs to accommodate requirements identified by Department of Resources (DoR) and local councils. The design requirements highlight below have been developed to ensure mitigations measures at each interface facilitate a safe crossing passage for cattle and drovers in an operational context. These include:</p> <ul style="list-style-type: none"> ▶ 10 m wide crossings at road rail interface locations to reduce cattle pressure and crossing times. ▶ Implementing holding yards where appropriate. ▶ Use of cattle grids at the rail tracks to avoid cattle entering the corridor. Fences and gates consistent with the published guideline for 7.3 m openings: Guideline: Fences on stock routes SLM/2019/5152 Version 1.01 20/10/2022 ▶ New stock corridor widths consistent with DoR Operational Policy; Land dealings affecting the stock route network: SLM/2013/363 Land Dealings affecting the stock route network (resources.qld.gov.au) ▶ A draft "Call Train Control Process" where drovers would contact ARTC network control in advance and obtain information on suitable windows between trains when they can cross their stock. This will account for train frequencies and stock volumes. ▶ During construction, should cattle move along the stock route/road corridor, communication will occur between Council and ARTC notifying them of the permit. Traffic management will be in place to ensure there is no conflict between stock and construction activities. The timing between construction laydown requirements and the use of the holding yards for the operational rail environment does not create any conflict. Noting the site-specific interface solutions are detailed within Appendix B2: Stock Routes. 	Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16 Appendix B2: Stock Routes Figure 1 - 26 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Section 6 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix P: Fauna Connectivity Strategy
159	159.0060	Local Government	Air Quality		Technical report that details information addressed in Chapter 12.	Refer to Chapter 12 comments as further analysis may be required should the current project scope change.	<p>A review of satellite imagery was completed to determine sensitive receptor locations along the Project corridor. This included visual identification of structures that could potentially be residential dwellings within a 1 kilometre distance from the alignment (Chapter 12: Air Quality, Section 12.32). It is possible that some of these structures identified would not be residential dwellings and instead be unoccupied buildings such as sheds or farm buildings. All identified sensitive receptors (residential dwellings or otherwise) have been included within the air quality impact assessment. Based on this conservative approach, ground truthing of identified sensitive receptors is not required.</p> <p>In addition to assessing impacts on air quality at households, the assessment also investigated potential impacts to tank water quality during the Operations stage of the Project (Section 12.33 and 12.5.2 of Chapter 12: Air Quality). This assessment was completed by predicting the deposition of pollutants of the roofs of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from the roof into a water tank. This assessment showed that tank water quality impacts from the Project would be negligible as pollutant concentrations would be well below the concentrations prescribed by the Australian Drinking Water Guidelines (National Health and Medical Research Council and National Resource Management Ministerial Council). Therefore, no treatment or mitigation measures such as first flush systems or constant water quality monitoring are required for rainwater tanks.</p> <p>Dust mitigation measures have been proposed for material stockpiling such as watering, physical covers where appropriate, and visual dust monitoring. The mitigation measures recommended for the Construction Works stage are presented in Section 12.6 and 12.7.2 of Chapter 12: Air Quality. The recommended mitigation and management strategies will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p>	Chapter 12: Air Quality Section 12.33 Section 12.52 Section 12.6 Section 12.7.2 Chapter 24: Draft Outline Environmental Management Plan
159	159.0061	Local Government	Cultural Heritage		Appendix W outlines scope of heritage assessment: to identify, assess significance, assess potential impacts, recommendations.	Is 50 m enough of a buffer around the project area for impacts to heritage places? For example, historic heritage listed places need to be included, as well as the lot next to them. The draft EIS should be reviewed for the buffer to be increased to at least 100 m for all heritage places and include historic heritage up to 500 m for example.	<p>The historical heritage survey and impact assessment area is based on a 50 m offset buffer around the construction disturbance footprint. This survey extent was informed by German Standard DIN 4150-3, which provides guideline vibration levels to minimise the risk of structural damage to property and buildings. The assessment area purposely targeted the zone where the highest potential levels of vibration may be experienced to ascertain typical worst-case impacts and use this information to develop reasonable and practicable measures to mitigate possible impacts.</p> <p>Basing the assessment on the worst-case outcomes ensures the required management and mitigation measures would be commensurate should heritage sites be identified further than 50 m from vibration activities and, as a function of this increased separation, experience vibration levels lower than the assumed worst-case.</p> <p>Mitigations to be contained in the Outline EMP are considered commensurate to the potential worst-case impact based on current information. This approach to identifying potential indirect heritage impacts was previously deemed appropriate by DES (submission to draft EIS #238.0031).</p> <p>Once the location and methodologies for construction works are confirmed, vibration modelling will be updated and the heritage assessment expanded as required to encompass areas where vibration is predicted to exceed acceptable thresholds at distances greater than 50 m from the works. This assessment will occur prior to the commencement of vibration generating construction.</p> <p>Further assessment of ground borne vibration will also be undertaken prior to construction commencement to validate the actual works and the site-specific conditions for the propagation of vibration outside of the construction footprint area. Assessment works can include vibration measurement trials with the actual plant and equipment in use to enable verification of vibration propagation calculations through the development of site-specific acoustic correction factors. Similarly, blasting contractors will undertake trial blasts to optimise the configuration of each blast to avoid vibration induced impacts to surrounding sensitive structures and receptors.</p> <p>Details regarding the additional survey requirements, and process for the revised impact assessment and management/mitigations based on the outcomes, are contained in the revised draft EIS Chapter 24: Draft Outline Environmental Management Plan. Commensurate vibration management measures will be included in the Construction Noise and Vibration Management Plan prior to the commencement of construction.</p>	Chapter 24: Draft Outline Environmental Management Plan
159	159.0062	Local Government	Cultural Heritage		Heritage Registers.	WWII and memorial registers should be taken into account here.	Chapter 19: Cultural Heritage, Section 19.3.4 amended to clarify that searches of WWII databases and Monument Australia have been completed. There are no places listed on either register within the Project Study Area.	Chapter 19: Cultural Heritage Section 19.3.4
159	159.0063	Local Government	Cultural Heritage		Historical Landscape Impacts	WWII and memorial registers should be taken into account here.	Chapter 19: Cultural Heritage, Section 19.3.4 amended to clarify that searches of WWII databases and Monument Australia have been completed. There are no places listed on either register within the Project Study Area.	Chapter 19: Cultural Heritage Section 19.3.4
159	159.0064	Local Government	Cultural Heritage		Potential impacts on heritage values.	It is unclear why world heritage levels of culture heritage sensitivity are used here after defining levels ranging between world and local and impacts between world and local? Sensitivity should be assessed within their relevant level.	As outlined in Chapter 19, Section 19.2 Table 19-1, the International Council on Monument and Sites (ICOMOS) system represents international best practice, and provides a graduated scale for assessing heritage significance and impact from world down to local. The appropriate categories have been used to assess the places potentially impacted by the Inland Rail Project.	Chapter 19: Cultural Heritage Section 19.2 Table 19-1
159	159.0065	Local Government	Cultural Heritage		Places the proposed works within its historical setting.	Although focused on built heritage, this Chapter should have begun with (a brief summation of) Aboriginal history as it still contributes to the context and taphonomy of the place.	Aboriginal ethnohistorical context added as Section 4.1 of Appendix Z: Non-Indigenous Cultural Heritage Survey Report.	Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 4.1
159	159.0066	Local Government	Cultural Heritage		Frontier Era (Appendix W)	Too much general background here. Moreton Bay is not relevant.	Moreton Bay is mentioned in the first paragraph of Section 4.2 (Appendix Z: Non-Indigenous Cultural Heritage Survey Report) as the location of the penal colony. The remainder of the Section focusses on the settlement of the Downs and the development of the railway.	Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 4.2
159	159.0067	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Specific Historical Sites: Kurumbal Station (South Western Line) Gibinbell Siding (South Western Line)Yelarbon Station (South Western Line)Whetstone Siding (South Western Line)Yandilla Station (Millmerran Branch Line)Pampas Station (Millmerran Branch Line) Cecilvale Station (Millmerran Branch Line) Yarranlea Station (Millmerran Branch Line) Murlaggan Station (Millmerran Branch Line)	Including a specific spatial reference in relation to the works area would be advantageous here, i.e. 45 m away from site. Additionally, the current condition of the place.	<p>The history of Inland Rail included in Section 4.4, Appendix Z: Non-Indigenous Cultural Heritage Survey Report, is not intended to be a comprehensive review of the project, but rather a brief summary to contextualise of the Protest Public Art (B2G-19-H22) and inform an understanding of its heritage values (Table 6.22).</p> <p>Details of the reference design have been updated in response to public submissions from the draft EIS as well as additional information requests from the Coordinator-General, January 2022. These updates are now reflected in the revised reference design, detailed in Appendix B1: Design Drawings and Appendix B3: Changes to Reference Design since Draft EIS.</p>	Appendix B1: Design Drawings Appendix B3: Changes to Reference Design since Draft EIS Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 4.4 Table 6.22
159	159.0068	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Historical background on the Inland Rail project.	The 2006 Study for Melbourne-Brisbane railway; 2010 study preferred route via Albury, Parkes, Moree and Toowoomba 2015 study; recommends Inland Rail proceed and confirms the preferred route; 2016 Route options assessed; 2018 construction commenced (inlandrail.artc.com.au/where-wego/route-history). There is more focus on negative community response than history and it does not consider the positive community response weeklytimesnow.com.au/news/national/budget-2017-inland-rail-funding-of-84-billion-promised/news-story/9eda254632ecfda93e0e0ad873dc93e4 . It does not consider early history of Inland rail (trove.nla.gov.au/newspaper/article/1499515).	<p>Chapter 2: Project Rationale discusses the Project alignment options and the history of the Project and of Inland Rail, Melbourne to South Queensland rail alignment. The '2020 Inland Rail History: 2006-2019 report' used to support Chapter 2: Project Rationale includes discussion regarding history of the Project and Inland Rail Melbourne to South Queensland rail alignment.</p> <p>Section 2.8 of Chapter 2: Project Rationale provides a discussion of the strategic option assessments for Inland Rail, from 2006 to 2015, and for the Project, from 2016 to 2017 for the draft EIS and amendments for the revised draft EIS submitted in 2023.</p>	Chapter 2: Project Rationale Section 2.8
159	159.0069	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Brannock & Associates 2010 Toowoomba Regional Council Heritage and Urban Character Study and Blake, Thom 2011 Goondiwindi Regional Council Heritage Survey	Short summary. Needs more critique of the report.	The EIS does not rely solely on local heritage reports, but rather treats them as one source among many for information on 'known' sites. Other sources of information include primary and secondary histories, and the detailed analysis of historical maps and aerial imagery. Further information on cultural heritage assessment methodology adopted is described in Chapter 19: Cultural Heritage, Section 19.3 Methodology and Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Section 3 Methodology.	Chapter 19: Cultural Heritage Section 19.3 Appendix Z: Non-Indigenous Cultural Heritage Survey Report
159	159.0070	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Explanation of historical map review.	Why is the percentage of sites included? A justification for this methodology should be included and explanatory figures could also be included here.	Section 3.1.2 of Appendix Z: Non-Indigenous Cultural Heritage Survey Report discusses the methodology for analysis of historical mapping. The percentage of sites provided in Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Table 5.4 shows the percentage of each category against the total number of sites. For example, nine of the sites of interest were bridges, which equates to 3.8% of 234 sites of interest. Further information about the map review is provided in the methodology Section of Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Section 3.1.2.	Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 3.1.2 Table 5.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
159	159.0071	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Direct and indirect impacts definition.	There are only two (2) categories direct OR indirect impacts. There should be a third, being direct AND indirect impacts.	Most heritage places that are directly impacted will also be indirectly impacted to some extent. The direct impact will cause the greatest magnitude of change, and so is the most relevant type of impact for the assessment. However, mitigations are provided for both direct and indirect impacts as relevant (see Chapter 19: Cultural Heritage Section 19.6.2, Table 19-22).	Chapter 19: Cultural Heritage Section 19.6.2 Table 19-22
159	159.0072	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Details identification and assessment of cumulative impacts on non-Indigenous heritage.	Why have only state significant heritage sites been considered and not local? What is the justification for this and what is the ToR requirement?	The assessment included searches of all relevant statutory and non-statutory registers, from Commonwealth to local level (Chapter 19: Cultural Heritage, Section 19.3). Furthermore, a number of new sites of local significance were identified (Chapter 19: Cultural Heritage, Section 19.4).	Chapter 19: Cultural Heritage Section 19.3 Section 19.4
159	159.0073	Local Government	Cultural Heritage	Cumulative impacts	Cumulative potential impact to non-Indigenous heritage sites.	Why the 50 m buffer for impact again? This needs to be explicitly defined and justified.	<p>The historical heritage survey and impact assessment area is based on a 50 m offset buffer around the construction disturbance footprint. This survey extent was informed by German Standard DIN 4150-3, which provides guideline vibration levels to minimise the risk of structural damage to property and buildings. The assessment area purposely targeted the zone where the highest potential levels of vibration may be experienced to ascertain typical worst-case impacts and use this information to develop reasonable and practicable measures to mitigate possible impacts.</p> <p>Basing the assessment on the worst-case outcomes ensures the required management and mitigation measures would be commensurate should heritage sites be identified further than 50 m from vibration activities and, as a function of this increased separation, experience vibration levels lower than the assumed worst-case.</p> <p>Mitigations to be contained in the Draft Outline EMP are considered commensurate to the potential worst-case impact based on current information. This approach to identifying potential indirect heritage impacts was previously deemed appropriate by DES (submission to draft EIS #238.0031).</p> <p>Once the location and methodologies for construction works are confirmed, vibration modelling will be updated and the heritage assessment expanded as required to encompass areas where vibration is predicted to exceed acceptable thresholds at distances greater than 50 m from the works. This assessment will occur prior to the commencement of vibration generating construction.</p> <p>Further assessment of ground borne vibration will also be undertaken prior to construction commencement to validate the actual works and the site-specific conditions for the propagation of vibration outside of the construction footprint area. Assessment works can include vibration measurement trials with the actual plant and equipment in use to enable verification of vibration propagation calculations through the development of site-specific acoustic correction factors. Similarly, blasting contractors will undertake trial blasts to optimise the configuration of each blast to avoid vibration induced impacts to surrounding sensitive structures and receptors.</p> <p>Details regarding the additional survey requirements, and process for the revised impact assessment and management/mitigations based on the outcomes, are contained in the revised draft EIS Chapter 24: Draft Outline Environmental Management Plan. Commensurate vibration management measures will be included in the Construction Noise and Vibration Management Plan prior to the commencement of construction.</p> <p>Cumulative impact methodology has been updated, as described in Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 11, and Chapter 19: Cultural Heritage Section 19.7.</p>	Chapter 19: Cultural Heritage Section 19.7 Chapter 24: Draft Outline Environmental Management Plan Appendix Z: Non-Indigenous Cultural Heritage Survey Report Section 11
159	159.0074	Local Government	Traffic and Transport		This technical report (app X) has been prepared to document traffic impact assessment.	Details from Appendix X have been addressed in Chapter 18 - Traffic, Transport and Access. Comments regarding proposals from the traffic assessment are included in the review of Chapter 18 above. The main concern in Appendix X is regarding relevance of the level of Service for the road network on local government roads. An increase in traffic above the 5% target in the level of service approach on low trafficked roads, will generally disqualify the requirement to address volume impact. However, heavy impacts on low structural strength pavements requires alternative methods of impact assessment.	<p>The Level of Service (LOS) is a measure of the functionality of the road segment and does not take into consideration damage to the road. The metric is used to determine whether an upgrade to the road is required due to a failure to accommodate the volume of traffic that will use the road with a reasonable to delay to vehicles. In this case the road segments remain within acceptable limits of delay for road vehicles.</p> <p>With regard to pavement damage Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts and highlights mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. As a result, ARTC is in ongoing discussions with the submitter and Road Manager, Goondiwindi Regional Council (GRC), on pavement impact and road maintenance arrangements. The agreed arrangements to deal with impacted pavements as a result of construction will be contained in the agreements between GRC and ARTC.</p> <p>ARTC will consult with relevant stakeholders (including directly affected landowners) during the Detailed Design stage on mitigation measures to ensure structural capacities are maintained and agreement on the minimum design life of returned works, as well as agreed contribution towards the consumption of pavement design life by construction related vehicles. Once the Contractor has prepared further plans and chosen their preferred design vehicle, these swept path assessments will be revisited to determine any temporary or permanent changes to the existing layout which may be required to accommodate construction traffic movements, such as road upgrades, localised lane widening, geometric improvements or removal of signage and lighting. ARTC commits that these mitigation measures will be further discussed and agreed with the relevant road authorities. ARTC has also committed to maintaining connectivity of existing on and off road pedestrian/shared user.</p> <p>Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.</p>	Appendix AA: Traffic Impact Assessment Section 5.6
159	159.0075	Local Government	Flooding	Modelling	Summary of document filed: Independent Review of Flood Modelling Undertaken for the Macintyre River Floodplain, Inland Rail Project, Border to Gowrie. Prepared by WRM Water and Environment Pty Ltd (Shamil Markar) WRM conducted a desktop review on the adequacy, accuracy and robustness of the flood modelling undertaken and modelling results produced for the reference design. Summary of Finding:	nil.	<p>The revised draft EIS includes additional hydrologic and hydraulic modelling work that was conducted as part of the North Star to NSW/QLD border Project at the request of NSW DPIE. The Macintyre River sections of the revised draft EIS has been updated, refer to Section 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
160	160.0001	Private	Land Use and Tenure	Severance of agricultural land	Failure to recognise that it is proposing the destruction of prime agricultural land; Failure to even consider that the protection of quality farm land is an environmental factor;	Failure of ARTC to consider the correctly proposed forestry route as an environmentally more sustainable corridor. It seems ARTC has used its own hotch-potch of a forestry route which was easier for it to criticise	<p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses;</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.02 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land <p>Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>ARTC has conducted an alignment options analysis provided in Chapter 8: Land Use and Tenure, Section 8.5, outlining the assessment of route options undertaken which resulted in State forest revocation being the best option. The other proposed alignments that avoided the State forests were discounted as they impacted the existing flood plain associated with the Macintyre Brook which would have resulted in additional hydrological impacts during a flooding event. Other considerations included that the other alignments represented a significant increase in the length of the alignment, meaning an increase in land take and therefore additional impacts on agricultural land. As such, the alignment which included the revocation of land within the Bringally and Whetstone State forests was selected.</p> <p>Whilst the Project will require the revocation of a portion of State forest, the alignment has been collocated with existing rail infrastructure where traversing Bringally State forest, and runs alongside a minor road that bisects the Whetstone State forest. As such, the alignment will not result in new fragmentation of land within the State forests.</p> <p>Chapter 2: Project Rationale, Section 2.8, further details the Projects alignment alternatives and justification process.</p>	<p>Chapter 2: Project Rationale Section 2.8 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46</p>
160	160.0002	Private	Project alignment	Modelling	Failure to compare like with like when it rejected the potential forestry route, and the associated rejection of the forestry route by consultants in the Deputy Prime Ministers office in what some suggest was a political opportunity to knock-out any attempt to consider the real facts of the forestry route	nil.	<p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p>	N/A
160	160.0003	Private	Flooding - Condamine River	Survey effort/field investigation data	Failure to correctly and realistically assess the Condamine flood plain crossing between Millmerran and Yarranlea, and compare it to the more technically correct and realistic crossing of the Condamine flood plain at Cecil Plains, which is at the northern end of the forestry section;	Further details in supplied articles Page 6 and 7 of submission: "ARTC flood plain corridor 60 years behind the times" A Condamine Flood Study NOT considered by ARTC	<p>The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned the Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Chapter 2: Project Rationale Section 2.9.3 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 7.6</p>
160	160.0004	Private	Project alignment	Modelling	Failure to minimise the number of landowners affected by the rail corridor between Yelarbon to Gowrie. The ARTC route truncates, dissects, destroys and touches about 260 properties. The alternate FORESTRYCORRIDOR through Cecil Plains and Mt Tyson, Wellcamp to Charlton and Gowrie affects about 60 properties.	Further details in supplied article Page 5 of submission: "ARTC affects 260 land areas - Forestry route just 60" (NOTE : Article directly reports on the number of reported impacts of various properties and locations not the alternative "Forest Corridor" proposal.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through the Project phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced in Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to Border to Gowrie and Appendix 4 (pp.109-116) provide a detailed history of routes via Warwick that have been considered over time.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
160	160.0005	Private	Project alignment	Survey effort/field investigation data	ARTCs failure to select a rail corridor that will both meet the sensible needs of politics, and also be the best environmentally sustainable option for decades and centuries to come.	nil.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8.2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix E: Consultation Report</p>
160	160.0006	Private	Project alignment	Modelling	One page article : Queensland deserves better from Inland Rail	Queensland people deserve better from the corridor design of the Inland Rail, and the Queensland Section of Inland Rail requires much more scrutiny because it traverses the most expensive and complicated Section of Inland Rail.	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>As described in Chapter 18: Economics, Section 18.9, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. As detailed in Chapter 8: Land Use and Tenure, Section 8.5.1, at a local government level, within Goondiwindi, the permanent disturbance footprint traverses;</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.02 cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land <p>Chapter 18: Economics, Table 18-11, summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts. Further details are provided in Chapter 8: Land Use and Tenure.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to Border to Gowrie and Appendix 4 (pp.109-116) provides a detailed history of routes via Warwick that have been considered over time.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Chapter 18: Economics</p> <p>Section 18.9</p> <p>Appendix E: Consultation Report</p>
160	160.0007	Private	Land Use and Tenure	Baseline/background sampling	One page article : ARTC EIS fails to preserve good agricultural land The ARTC EIS fails to recognise it is destroying the farming environment	The ARTC rail corridor (B2G) will isolate and destroy almost 2000 ha of prime cropping and pasture land. Australia can no longer afford this destruction. ARTC fails to acknowledge that prime farming soil is an environmental asset. Article identifies that good productive land is about 4% of Australia's landmass and the land ARTC has selected for its Border to Gowrie rail line, is in the 4% category.	<p>ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses;</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.19 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land <p>Chapter 8: Land Use and Tenure, Section 8.5.1 and Table 8-29 provide an assessment of impacts on strategic cropping areas. The permanent footprint of the Project will affect approximately 2,506.62 ha of mapped strategic cropping areas within the Darling Downs regional planning area, which is representative of 0.02 per cent of strategic cropping areas within the region. The permanent footprint will also impact 52.94 ha of strategic cropping areas within the South East Queensland regional planning area, which represents less than 0.01 per cent of these areas within the region. RPI Act Statutory Guideline 03/14 – Carrying out resource activities in the strategic cropping area prescribes a 2 per cent threshold of permanent impact to strategic cropping area on an individual property to determine whether a resource activity will result in a material impact. The Project will impact significantly less than 2 per cent of mapped strategic cropping areas within either of the relevant regional planning areas, and accordingly does not have a material impact on strategic cropping areas.</p> <p>Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.2</p> <p>Table 8-29</p> <p>Table 8-46</p>
160	160.0008	Private	Project alignment	Survey effort/field investigation data	Three page article on the details and benefits of alternative "Forestry Corridor" proposal	Further details in supplied article Page 8 - 10 of submission: "ARTC corridor directly affects. . . . 260 properties - Forestry corridor directly affects. . . 60 properties" NOTE: This 3 page article has close to the same title as the Page 5 of the submission but relates directly to the details and benefits of alternative "Forestry Corridor" proposal with map diagram provided	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8.2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
161	161.0001	State Agency	Social Impact Assessment	Mitigation measures	As identified in the EIS the potential social impacts to emergency services during construction and operation are confirmed, including but not limited to: <ul style="list-style-type: none"> Increased demand for police and emergency services Increased emergency response delays. The QLD Police Service strongly supports the mitigation measures identified in Appendix X to address impacts to health, emergency services and facilities, during detailed design, preconstruction and operation. See submission for list of mitigation measures. 	Measures identified within the EIS are supported. During Detailed Design: consultation with QPS to ensure appropriate access and egress solutions are incorporated into detailed design to enable movements across the rail corridor (p.189). <ul style="list-style-type: none"> Provision of early advice, workforce ramp-up estimates, construction schedule and the like to QPS to assist with forward planning for any service adjustments that may be required (p.222, 255). Preparation of a Community Well-being Plan in cooperation with QPS. Pre-Construction to Construction: Provision of a forward schedule for construction activities requiring over-sized vehicle escorts to police services and all emergency services bases (p.190,255). Early engagement with emergency service providers to develop protocols for emergency responses (p.190,255) Regular liaison meetings with QPS from pre-construction to project operation (p.190). Operation: Co-operation with QPS, defining appropriate and coordinated responses and communication in the event of accidents and other emergencies. Ready access to train schedules and alternate route options (p.190) 	The submitter's support of SIMP measures in place with QPS is noted.	N/A
161	161.0002	State Agency	Traffic and Transport	Mitigation measures	The potential traffic, transport and access impacts to the emergency services identified in the EIS are confirmed. The QLD Police Service strongly supports the mitigation measures identified in the EIS to address the traffic impact to the emergency services during detailed design and construction. See submission for list of mitigation measures.	Proposed measures within the EIS are supported to address traffic impacts to emergency services including but not limited to. <p>Detailed Design:</p> <ul style="list-style-type: none"> Consultation with QPS to address safety concerns and ensure appropriate access and egress solutions are incorporated into detailed design to enable movements across the rail corridor. <p>Provision of construction management plans to QPS. Construction:</p> <ul style="list-style-type: none"> Notifying relevant emergency services of temporary permanent changes to the road network and construction activities that may affect emergency responses times, and prior to the movement of all hazardous or oversize construction material and equipment. It is further recommended that construction management plan and/or traffic management plan account for emergency services. 	Appendix AA: Traffic Impact Assessment Section 5.10.1 and Section 6.1.9 address the traffic impacts on emergency services. As noted in the submission, as part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS (submitter) and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS (submitter) will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track. <p>Consultation with the community and relevant government agencies (including emergency services) will continue through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p> <p>The Construction Traffic Management Plan will identify and include secondary/alternative construction routes which can be used by construction traffic in the event that a primary construction route is blocked by an accident or emergency situation. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority. In all of these cases, the QFES, QAS and QPS will be updated and informed of changes by the Contractor.</p>	Appendix AA: Traffic Impact Assessment Section 5.10.1 Section 6.1.9
161	161.0003	State Agency	Stakeholder engagement		The police are satisfied with the processes that have been developed and undertaken by ARTC in terms of their consultation with stakeholders including the direct engagement with local police.	nil.	ARTC notes the submission and will continue to engage with emergency services throughout reference design and detailed design. Agency engagement will continue, with QFES, QPS, and local police stations along the alignment to better understand emergency access and hazard management. One-on-one engagement will continue with the Regional Director of Policing and ARTC will continue to attend the District Disaster Management Group to present Project updates regularly to increase dialogue about the impact of the alignment on emergency services. In 2023, ARTC proposed a quarterly Border to Gowrie Emergency Management Working Group, comprising senior members from QAS, QFES and QPS. ARTC will continue to liaise with these stakeholders and schedule regular engagement. The framework for emergency management across the Project alignment, including operational communication protocols within each agency will also be established as part of this process.	Chapter 6: Stakeholder Engagement Appendix E: Consultation Report
161	161.0004	State Agency	Stakeholder engagement		Police members have been involved in the agency briefings, and relevant parties have had access to the draft EIS. It is noted there will be impacts on policing as a consequence of this infrastructure development including access, transport issues, accommodation camps, policing responses required for potential protest activity and community unrest leading up to and during construction phases. Additionally, demand for police escort services for excess dimension loads. Community impacts are also of concern including persons affected by the construction, route and impact on their mental health. There are active action groups in a number of communities along the route and have expressed concern in relation to changes in flood patterns on farms, agricultural land, land acquisitions, property values and rural amenity.	No specific comment of suggested changes to EIS.	ARTC notes the submission and will continue to engage with emergency services throughout reference design and detailed design. Agency engagement will continue, with QFES, QPS, and local police stations along the alignment to better understand emergency access and hazard management. One-on-one engagement will continue with the Regional Director of Policing and ARTC will continue to attend the District Disaster Management Group to present Project updates regularly to increase dialogue about the impact of the alignment on emergency services. ARTC are in the process of establishing an Emergency Management Working Group between emergency services and Inland Rail to oversee and ensure ongoing regular communication from Q3 2023 onwards.	Chapter 6: Stakeholder Engagement Appendix E: Consultation Report
162	162.0001	Private - Turallin Workers	Stakeholder engagement	Workforce accommodation village	Lack of consultation with the local and neighbouring residents in Turallin/Millmerran area	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
162	162.0002	Private - Turallin Workers	Traffic and Transport		<ol style="list-style-type: none"> Workers could find it difficult to access the Millmerran's facilities as 9 km from city centre. Increase in traffic on narrow roads that are already heavily traversed. Impact on Travel time as it is further from the alignment of the rail project. Turallin and Eilersie Roads would require substantial upgrades to accommodate existing and future traffic, this being approx.8 km in. Could impact on Millmerran town parking availability. 	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4.</p>	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
162	162.0003	Private - Turallin Workers	Air Quality		Location lacks services. Should generators be required to supply power this would create greenhouse emissions.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>An engagement session with the community was held on 13 October 2021 with ARTC. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Feedback received by the Project to date will be passed on to the Contractor for consideration. Consultation with relevant stakeholders (local/state governments, emergency service providers etc.), directly affected landowners and the broader community will continue through the Detailed Design stage.</p> <p>Following this consultation, feedback through the draft EIS and a site feasibility study, Turallin is no longer being considered as a suitable location for a non-resident workforce accommodation facility.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, an initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation facilities in the vicinity of Yelarbon, Inglewood and Millmerran. Locations have been identified with consideration for:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties (Inglewood and Yelarbon) have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for the non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>It is expected that power demand for the non-resident workforce accommodation facility would be serviced by the mains power grid (Energen), and that only stand-by generators would be required in case of emergency, to provide electricity in the case of a power outage. Greenhouse gas emissions from the operation of a stand-by, back-up generator would be minor in magnitude. Other forms of power generation, such as solar arrays which do not generate emissions, are not suitable for stand-by power generation.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>
162	162.0005	Private - Turallin Workers	Social Impact Assessment	Property Devaluation	<p>a. Impact on properties, variation of property, cost of fuel and maintenance of the generators, water supply and waste water treatment could become an ongoing issue.</p>	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community. Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
162	162.0006	Private - Turallin Workers	Social Impact Assessment		The camp site could have a possible negative Life Style impact on the small rural historic community.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community. Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
162	162.0007	Private - Turallin Workers	Flooding		Risks of flooding and erosion due to earthworks. Pine Creek could flood and both Turallin and Ellerslie Roads are subject to flooding which could result in road closures.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The two two hectare non-resident workforce accommodation sites have been included in the temporary footprint to accommodate the Project construction workforce requirements, one at Inglewood and another at Yelarbon. A third non-resident workforce accommodation site will be required in the Millmerran area and the Contractor is currently undertaking feasibility assessments to identify the optimal location for the site in the Millmerran region. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken by the Contractor during detailed design.</p> <p>Flood risk assessments have been performed for a material distribution centre at Whetstone, non-resident workforce accommodation at Yelarbon and Inglewood, a Turallin facility and approximately 78 laydown areas and are documented in Section 20 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. Control measures to maintain flood immunity of temporary construction facilities have been discussed in Section 20.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 20</p> <p>Section 20.6</p>
162	162.0008	Private - Turallin Workers	Surface Water		Pollution from waste water could potentially flow through the creek. Water Supply and waste water treatment, could be an ongoing issue if the site remains.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design (Section 5.6.4, Chapter 5: Project Description). However, it is recognised that Toowoomba Regional Council and members of the community (particularly businesses owners) have expressed support for the accommodation facilities to be located close to the towns to maximise business opportunities.</p> <p>Supporting and additional infrastructure associated with each accommodation will include water and wastewater collection and treatment facilities, including temporary package sewage treatment and adequate availability of land for treated effluent disposal (estimated capacity of 300 equivalent population).</p> <p>Opportunities for beneficial reuse of construction facilities, such as non-resident workforce accommodations, will be investigated through consultation with local governments and relevant stakeholders.</p> <p>Where a beneficial reuse cannot be identified, the construction facilities will be progressively decommissioned so that reinstatement and revegetation activities can commence as soon as possible.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
162	162.0009	Private - Turrallin Workers	Flora and Fauna		Chance of Flora & Fauna displacement	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	A potential impact to flora and fauna is displacement as a result of habitat loss, habitat fragmentation, invasion by weeds and pest species, reduction in biodiversity corridors, and barriers. Mitigation measures to reduce this impact include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna of the revised draft EIS for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7
163	163.0001	Private	Stakeholder engagement	Construction traffic	I am concerned about where the corridor is going and alignment is subject to change and access for contractors vehicles entering my property due to black soil and I would not like trucks and other heavy vehicles wrecking road and the dust produced by vehicles driving needs to be kept to a minimum.	Suggest that the other corridors be considered, and if this goes ahead the roads around the farm be gravelled and maintained if access is needed in both wet and dry weather. Also that if the vehicles create dust that the roads they need access to, need to be watered.	ARTC acknowledges landowner concerns regarding the potential impact of the Project on property operations. This is detailed in Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report of the revised draft EIS. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 6: Stakeholder Engagement Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report
163	163.0002	Private	Stakeholder engagement	Directly impacted landowner	Disruptions to cattle and cropping areas are a concern if they have to be moved from paddock to paddock to allow access for feeding and planting.	I suggest cattle not be disturbed too much and the planted paddock not be disturbed either	ARTC acknowledges landowner concerns regarding the potential impact of the Project on property operations. This is detailed in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.5 and Section 6.6. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 6: Stakeholder Engagement Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 5.1
163	163.0003	Private	Land Use and Tenure	Private groundwater bore/s	Underground water is a concern if inland rail pumps out of aquifers and our water levels go down	Underground water needs to be checked for levels and monitored so bores aren't pumped dry during construction if it goes ahead.	Chapter 8: Land Use and Tenure, Section 8.6.2, states that ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of: ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property ▶ The potential for changes in access to natural resources, such as groundwater and overland flow. Chapter 8: Land Use and Tenure Section 8.6.1 discusses measures in relation to impacts to groundwater bores and other agricultural infrastructure. Where possible, the Project has been aligned such that it avoids or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties (Chapter 8: Land Use and Tenure, Section 8.6.1). Where disruption to water supply occurs, crossing points will be provided or the relocation of dams or irrigation systems will be undertaken in consultation with landowners. Where a groundwater bore is expected to be decommissioned or have access/usage be disrupted as a result of the Project, 'make-good' measures will be agreed in consultation with the impacted landowners, refer Appendix U: Groundwater Technical Report, Section 8.3.4 for further detail regarding the 'make-good' process. Appendix U: Groundwater Technical Report discusses loss or damage to existing groundwater bores, including restriction of access during construction (Section 7.1) and operation (Section 7.2). Proposed mitigation measures are described in Section 8.2, Table 8.2 (Appendix U: Groundwater Technical Report).	Chapter 8: Land Use and Tenure Section 8.6.1 Section 8.6.2 Appendix U: Groundwater Technical Report Section 7.1 Section 7.2 Section 8.2 Table 8.2
163	163.0004	Private	Stakeholder engagement	Construction traffic	Creek crossing needs to be suitable for heavy vehicles entering property.	I suggest the creek crossing be up graded and made wider for heavy vehicles	ARTC notes this submission and stakeholder's concern. As denoted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 24: Draft Outline Environmental Management Plan
164	164.0001	Private	Social Impact Assessment	Infrastructure crossings/interaction	Community Connectivity Stop the town being divided. Properties, houses, local businesses, historical sights. With no access to the north of the rail line it would be approximately three kilometres from one side to the other. This would make it difficult for those unable to drive e.g. the elderly and the young to access local business, houses and historical sights.	1. An underpass from Talion St to Railway Parade Yelarbon 4388 with pumps to remove any water issues. 2. A train operated gate system similar to the boom gates with security fencing either side of the gates to prevent people crossing when the trains are approaching	With the exception of Yelarbon and Brookstead, the Project bypasses the main townships in the region, avoiding impacts on connectivity within towns. Appendix X: Social Impact Assessment, Section 7.1.5 notes that Yelarbon's amenity would be affected by intensification of the rail corridor along Yelarbon's northern border, with increases in rail noise and changes to scenic character of the area near the Project footprint. ARTC has committed to continued engagement with the Yelarbon community and GRC to plan and implement community projects to offset impacts on the amenity and character of Yelarbon. In Yelarbon, the existing level crossing will be preserved, and a grade separated crossing (road over rail) will also be provided over Yelarbon Kurumbul Road and connecting to the Cunningham Highway. The crossing design maintains connectivity from the Cunningham Highway to the township. There is currently no pedestrian path across the existing rail line in Yelarbon. As a result of consultation with GRC and the Yelarbon CCC (a community-run committee), the Project's reference design has been revised to include a pedestrian crossing to provide north-south connectivity (Appendix X: Social Impact Assessment, Section 7.1.7).	Appendix X: Social Impact Assessment Section 7.1.5 Section 7.1.7
165	165.0001	Private	Land Use and Tenure	Directly impacted landowner	The project will resume a quarter of the submitter's property, and leave a large cutting the dissects the property with no access to severed land.	1. Adequate compensation for loss of land 2. New fencing required for existing livestock 3. Viability of grazing on reduced acreage.	As stated in Chapter 8: Land Use and Tenure, Section 8.6.1, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices (Chapter 8: Land Use and Tenure, Section 8.6.2). Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties. Where disruption to water supply occurs, crossing points will be provided or the relocation of dams or irrigation systems will be undertaken in consultation with landowners. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of: ▶ Landowners' needs regarding access to the properties and the closure of private roads. ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. ▶ The potential for changes to groundwater access. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis using the market value of the land as at the date of resumption As stated in Chapter 8: Land Use and Tenure, Section 8.6.2, assessment of compensation is undertaken in accordance with Section 20 of the AL Act. Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance. Costs attributable to Compensation for disturbance caused by the resumption may include: ▶ Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation ▶ Costs related to the purchase of replacement comparable land ▶ Storage and removal costs ▶ Other reasonable financial costs incurred that are a direct consequence of the resumption of the land.	Chapter 8: Land Use and Tenure Section 8.6.1 Section 8.6.2
165	165.0002	Private	Flora and Fauna	Koala	Project will divide an existing koala habitat, which is significant to the species survival. The existing koala community could be a rare gene pool as found in other nearby areas - DNA tests pending. All shade trees will be taken by ARTC from the back of the submitter's property by compulsory land acquisition.	1. No rail dividing koala habitat 2. require mature trees to be planted and watered until established to replace existing tree loss or compensation for costs to establish more mature trees.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Appendix P: Fauna Connectivity Strategy identify the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy) In addition, ARTC has commenced two key research initiatives relating the koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study koala genetics that focusses on population genetics and dietary analysis for koalas across eight of the Inland Rail Projects. The purpose of this study to: ▶ Increase baseline data on koala population resilience and restoration requirements. ▶ Informs koala conservation controls as required in conditions of approval. ▶ Informs fauna connectivity plans. ▶ Informs koala offset management decisions. ▶ Contribute to Infrastructure Sustainability Council credits. The expected completion date for these studies is June 2023. In instances where a significant residual impact has been identified as per the EPBC Act Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised Environmental Offset Delivery Strategy (Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie) that outlines the properties that make up the Border to Gowrie Project offset portfolio and their suitability to acquit significant residual impacts on MNES and MSES. Appendix Q: Environmental Offset Delivery Strategy includes a summary of how the proposed offset portfolio will acquit the anticipated offset requirements for the koala to achieve no net loss. ARTC has prepared a revised Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie that outlines the properties that make up the Border to Gowrie Project offset portfolio and their suitability to acquit significant residual impacts on MNES and MSES. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes a summary of how the proposed offset portfolio will acquit the anticipated offset requirements for the koala to achieve no net loss.	Appendix E: Consultation Report Section 4.2 Section 5.0 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
165	165.0003	Private	Air Quality		Concerns during construction and operational phase e.g. gas emissions from diesel train exhausts. Decrease in air quality due to earth works and operation of machinery Dust and air pollution from train cargo and moving wagons Nearby proposed concrete plant.	<ol style="list-style-type: none"> Home hermetically sealed to manage exacerbation of existing allergies due to the above. Compensation for increased medical costs associated with the above. Adequate dust suppression 	<p>The assessment of the Construction Works and Operations stages has determined that the Project will result in air emissions, however the impact to sensitive receptors (i.e., impacts to health and nuisance/amenity) as a result of these emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>In the dispersion model developed for the assessment of the Operations stage in Appendix F of Appendix R: Air Quality Technical Report, the landholder's dwelling has been represented by the sensitive receptor R769. Based on the predicted maximum cumulative pollutant concentrations at receptor R769 for the Operations stage, significant impacts are not expected at the submitter's residence. On this basis, neither compensation for medical expenses nor mitigation measures and/or treatments to individual dwellings are expected to be required.</p> <p>The assessment of construction has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households). Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). As discussed in Section 12.32 of Chapter 12: Air Quality, gaseous emissions (fumes) from construction vehicles and construction equipment are unlikely to present risk of significant impact.</p> <p>Recommended mitigation measures include that the locations of construction facilities such as concrete batching plants be positioned as far as practicable from neighbouring sensitive receptor locations, within the confines of the construction footprint (Appendix R: Air Quality Technical Report, Section 8.3). With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts for impacts to health and nuisance/amenity will be low or negligible.</p> <p>The air quality assessment of the Operations stage determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in Section 12.4.5 in Chapter 12: Air Quality) within the study area for the Project.</p> <p>Further information on the results of the construction and operation assessment on impacts to air quality are presented in Section 12.5 and Section 12.6 of Chapter 12: Air Quality. The recommended mitigation measures to reduce emissions and minimise the potential for significant impacts are discussed in Section 12.6 of Chapter 12: Air Quality and Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 12: Air Quality Section 12.32 Section 12.4.5 Section 12.5 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Section 8.3 Appendix F</p>
165	165.0005	Private	Groundwater		Water for project impacting on ground water supply EIS report states ground water will be affected due to the fractured nature of the aquifer which can result in loss and damage to existing bores. EIS states they expect a 60 metre draw down effect which will cause shallow bores to go dry. Shallow bores and deep cuts nearby will affect the ground and surface water flow	<ol style="list-style-type: none"> New bore that equals the existing supply. Adequate compensation if the above measure fails. 	<p>As part of the revised draft EIS, predicative groundwater models were developed to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts (Chapter 15: Groundwater, Section 15.6.2). The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (cuts most likely to intersect groundwater). The revised modelling results indicate that the horizontal extent of drawdown is predicted to extend a maximum of 10 m to 43 m horizontally from the rail centreline (from the deepest cuts). The model was updated to reflect the refined alignment and design as part of the revised draft EIS and the results are presented in Chapter 15: Groundwater, Section 15.6 and Appendix U: Groundwater Technical Report, Figures 6.14-6.20 provided in Section 6.3 visually demarcate the anticipated extent of drawdown.</p> <p>A water/groundwater bore survey has been issued to landowners to confirm the location/presence of water supplies that may be impacted by the Project. Where necessary make-good measures will be developed on case-by-case basis in consultation with the landowner. Details of the proposed potential make-good measures detailed in Section 15.7.4 and Table 15-20 of Chapter 15: Groundwater. However, the measures developed for each impacted water storage feature/bore will be unique and commensurate with the level of impact realised, therefore specific details cannot be provided at this time.</p>	<p>Chapter 15: Groundwater Section 15.6 Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6.3 Figure 6.14-6.20</p>
165	165.0006	Private	Surface Water		Water quality and quantity impacted by the project. Greatly reduced catchment area for existing dam.	<ol style="list-style-type: none"> Supply water to property at the cost to ARTC. Compensation for loss of catchment area which will result in a massive decrease in existing dam water supply. 	<p>The flooding and hydrology study presented in Appendix T1 and T2: Hydrology and Flooding Technical Report - Volumes 1 and 2 of the revised draft EIS have assessed impacts to existing overland flow as a consequence of the Project. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, hydrological modelling indicates that no significant changes are expected to base-flow and low-flow conditions and that access to surface water resources will not be affected.</p> <p>As stated in Table 13-16 of Chapter 13: Surface Water, the detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).</p>	<p>Chapter 13: Surface Water Table 13-16 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
165	165.0007	Private	Social Impact Assessment	Directly impacted landowner	Lack of valid information in regard to project. Answers from ARTC not consistent, e.g. we have a loop on our property however ARTC stated that was not the case. The EIS shows the loop and a maintenance loop. ARTC states no one will be disadvantaged. This has been my home for 23 years. Quality improvements added to this property. NO opportunity to acquire a similar property locally.	<ol style="list-style-type: none"> Costs of legal fees if we are disadvantaged by ARTC Moving costs if we are unable to reside in our home due to the above and rail impacts. Provide compensation to enable us to acquire a similar property if we are forced to relocate due to the above. 	<p>Property acquisitions will be undertaken by DTMR as the Acquiring Authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967. This includes compensation for reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs and other reasonable financial costs incurred that are a direct consequence of the resumption of the land (Appendix X: Social Impact Assessment, Section 7.1.7).</p> <p>There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property.</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 8.5.3 acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landowners' concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access mental health support services.</p> <p>ARTC will also provide supporting information for people who need to relocate, including referral to DCHDE housing support programs where necessary.</p>	<p>Appendix X: Social Impact Assessment Section 7.1.7 Section 8.5.3</p>
165	165.0008	Private	Stakeholder engagement	Directly impacted landowner	Consulting with ARTC at Pittsworth town hall recently, inappropriate and unprofessional comments made by employee of ARTC, e.g. We don't pay for emotions was stated by a person standing by. Name can be supplied.	nil.	<p>ARTC acknowledges the submitter's concerns and does not condone this type of behaviour. ARTC notes that it has made direct contact with the submitter and designated an alternative person within the team to manage the relationship.</p>	N/A
165	165.0009	Private	Social Impact Assessment	Property Devaluation	Stress dealing with local real estate. A verbal valuation was supplied for the land resumed and when requested to put this on paper the value was reduced by \$100,000.00. Devaluation of property with rail nearby and not receiving adequate compensation. ARTC supplying conflicting information in regard to distance rail would be from home. Increased stress and exacerbation of existing health conditions due to all the above mentioned issues. High legal costs to fight for appropriate and adequate compensation.	<ol style="list-style-type: none"> Costs of legal fees if we are disadvantaged by ARTC Moving costs if we are unable to reside in our home due to the above and rail impacts. Provide compensation to enable us to acquire a similar property if we are forced to relocate due to the above. Compensation for devaluation of property due to rail nearby. 	<p>Property acquisitions will be undertaken by DTMR as the Acquiring Authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967. This includes compensation for reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs and other reasonable financial costs incurred that are a direct consequence of the resumption of the land (Appendix X: Social Impact Assessment, Section 7.1.7).</p> <p>There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property.</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 8.5.3 acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landowners' concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access mental health support services.</p> <p>ARTC will also provide supporting information for people who need to relocate, including referral to DCHDE housing support programs where necessary.</p>	<p>Appendix X: Social Impact Assessment Section 7.1.7 Section 8.5.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
166	166.0001	Private	Editorial		EIS is so voluminous and presented in such a way that it is very difficult for affected landowners to identify all important issues such as social and economic impacts, lack of effective stakeholder engagement, ongoing effects of noise and vibration, and a lack of acknowledgement and understanding of farming operations.	<ol style="list-style-type: none"> 1. ARTC should be more transparent, and receptive to critical evaluation of issues such as the route chosen and the effects on landowners livelihoods and lifestyles. 2. Landowners need to be reassured that they will be adequately and fairly compensated for their properties/land being compulsorily acquired, which acknowledges the severe effects on property productivity and value. 3. Meaningful and individual consultation with those landowners whose residences are sensitive receptors of noise and vibration. 4. Specialist rural consultants with experience in both farming and livestock activities should be appointed to community engagement teams. 	<p>The revised draft EIS is necessarily extensive to provide an appropriate and comprehensive response to the Terms of Reference (ToR). The division of the revised draft EIS into chapters and appendices is intended to assist readers and stakeholders to locate the information of relevance to them.</p> <p>Chapter 17: Social describes the results of the social impact assessment (SIA) that was undertaken as part of the revised draft Environmental Impact Statement (EIS) for the Inland Rail—Border to Gowrie Project.</p> <p>Chapter 18: Economics reports on the Economic Impact Assessment developed for the Project. The Economic Impact Assessment has been developed according to the Coordinator-General's Economic Impact Assessment guideline. The approach adopted is consistent with recognised industry methods and represents a whole-of-life approach, comprising an evaluation of the economic impacts and benefits generated by the Project across both the Construction Works and Operations stages.</p> <p>Chapter 6: Stakeholder Engagement reports on the stakeholder engagement process undertaken in the preparation of the revised draft EIS, including the development of an SIA for the Project. Community and stakeholder feedback has been considered by multi-disciplinary technical study teams as part of defining the Project's reference design and preparing the revised draft EIS. Consultation is ongoing and stakeholder engagement will continue as the Project progresses.</p> <p>ARTC is committed to building long-term, mutually beneficial relationships with stakeholders and the community openly and in a collaborative manner. The aim of the Project's stakeholder engagement program is to create a two-way dialogue by actively listening to stakeholders and providing opportunities for communities to raise concerns and form partnerships to resolve potential issues. This is discussed further in Chapter 6: Stakeholder Engagement, Section 6.2.</p> <p>A Consultation Report has been prepared for the Project, which is included in Appendix E: Consultation report. This report details the consultation activities undertaken to support the development of the revised draft EIS, and the materials used to support consultation activities. This consultation has informed the revised draft EIS by identifying areas of stakeholder concern, as well as informing technical solutions, reference design and identifying mitigation measures, where appropriate.</p> <p>Chapter 16: Noise and Vibration provides a summary of the potential noise and vibration impacts of the Project during its construction and operation. The purpose of the noise and vibration assessment is to identify how noise and vibration from the construction and operation of the Project may impact the sensitive land uses and receptors within the surrounding environment. Based on the identified impacts, the assessment proposes measures to reduce and control noise and vibration levels and provide a reasonable and practicable mitigation of potential impacts.</p> <p>Chapter 8: Land Use and Tenure, Section 8.5.1 identifies potential impacts of the Project on farming operations. Chapter 9: Land Resources, Section 9.5 identifies important agricultural areas and identifies the potential impacts of the Project on these communities and resources. The revised reference design has been modified to further reduce impacts on valued agricultural land and impacts on communities. The reference design is co-located with existing road and rail infrastructure farm property boundaries where possible to reduce potential fragmentation and sterilisation of land. The reference design has also been developed to avoid impacts to Commodore Mine, intensive livestock operations and the obstacle limitation surface associated with Toowoomba Wellcamp Airport within Chapter 9: Land Resources.</p> <p>Acquisition will be undertaken in consultation with landowners on a case-by-case basis, in accordance with Appendix E: Consultation Report and Chapter 6: Stakeholder Engagement. Where acquisition is required, the Department of Transport and Main Roads (DTMR), as the constructing authority for the Project, will manage the compulsory land acquisition process in accordance with the provisions of the Acquisition of Land Act 1967 (Qld) for land required for the Project that is not State land.</p> <p>The route that has been selected and assessed in the revised draft EIS is the product of extensive investigation and review.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This process has included developing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs DCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.7) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14 and described in Chapter 2: Project Rationale, Section 2.7. The design development process used a combination of technical assessments and the ARTC MCA tool, which was used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for the Project in 2017, the Australian Government announced a two-kilometre-wide study area based on the alignment via Wellcamp Charlton was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced in Chapter 2: Project Rationale of the revised draft EIS which describes the route+IB selection process for the proposal, both before and after confirmation of the study area.</p> <p>In May 2020 and subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications engaged an independent consultant (GTA Consultants) to conduct a review which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The broader Inland Rail route analysis is documented in the Melbourne to Brisbane Inland Rail Route History 2006-2019 document, where pages 92 to 103 relate specifically to the Project and Appendix 4 (pp.118-126) providing a detailed history of routes via Warwick that have been considered over time (refer inlandrail.wpenlinepowered.com/wp-content/uploads/2020/05/route-history-2006-2021-may-22.pdf).</p>	<p>Chapter 2</p> <p>Section 2.7</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Chapter 9: Land Resources</p> <p>Section 9.5</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 18: Economics</p> <p>Section 18.3</p> <p>Section 18.9</p> <p>Appendix E: Consultation Report</p>
166	166.0002	Private	Land Use and Tenure		EIS does not identify or acknowledge that a large amount of land traversed by the project is strategic cropping land.	The Queensland government should decide that the Inland Rail activities are "regulated activities" under the Regional Interests Planning Act, which acknowledges the Strategic Cropping Land classification.	<p>As discussed in Chapter 8: Land Use and Tenure, Section 8.2. The Regional Planning Interests Act 2014 (Qld) regulates areas of regional interest and requires a resource activity or regulated activity proposed to be located in an area of regional interest to obtain a regional interests development approval. As the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014 (Qld), the Act does not apply. As such, the Regional Planning Interests Act 2014 (Qld), and the alignment's impact on the matters protected under Regional Planning Interests Act 2014 (Qld), do not have a bearing on the EIS process, nor is the approval of the EIS contingent on the assessment of the Project's impact on areas of regional interest. Notwithstanding this, the Project's impact on areas of regional interest protected under the Regional Planning Interests Act 2014 (Qld) has been assessed to provide a comprehensive assessment of the Project's impact on agricultural, environmental and societal values present within both the temporary and permanent disturbance footprints of the alignment.</p> <p>To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9, which provides a total of areas of regional interest in relation to the Project footprint. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations.</p> <p>Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners (Chapter 8: Land Use and Tenure, Section 8.6.2). The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.2 of Chapter 8: Land Use and Tenure).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.2</p> <p>Section 8.5.4</p> <p>Section 8.6.2</p> <p>Table 8-46</p>
167	167.0002	Private	Air Quality		Dust and air pollution	Have Paint Mine Road upgraded to bitumen surface to Lot 15 entry	<p>The assessment of the Construction Works and Operations stages has determined that the Project will result in air emissions, however the impact to sensitive receptors as a result of these emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>Construction dust emissions have been assessed qualitatively for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). As discussed in Section 12.32 of Chapter 12: Air Quality, gaseous emissions (fumes) from construction vehicles are unlikely to present risk of significant impact.</p> <p>The assessment of the Construction Works stage has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts.</p> <p>With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts on human health and nuisance/amenity will be low or negligible. Further information on the results of the assessment of the Construction Works stage are presented in Section 12.51 of Chapter 12: Air Quality.</p> <p>Mitigation measures recommended for the Project are presented in Section 12.6 of Chapter 12: Air Quality. There are a number of mitigation measures related to haul routes including proper planning of haulage routes, restricting vehicle speeds on unsealed haul roads, appropriate surface treatments for the predicted construction traffic movements, and visual monitoring of the effectiveness of dust controls.</p> <p>The assessment of the Operations stage determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in the Chapter 12: Air Quality, Section 12.4.5) within the study area for the Project. Further information on the results of the operational assessment on impacts to air quality are presented in Section 12.52 of Chapter 12: Air Quality.</p> <p>Bitumen sealing is not considered to be required as Paint Mine Road is not expected to carry heavy project-related traffic during the Construction Works stage, and the recommended mitigations provided for the Construction Works stage of the Project (Section 12.6, Chapter 12: Air Quality) are expected to effectively mitigate the potential for significant impacts to air quality. These mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 12: Air Quality</p> <p>Section 12.32</p> <p>Section 12.4.5</p> <p>Section 12.51</p> <p>Section 12.52</p> <p>Section 12.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
167	167.0003	Private	Project scope		Boundary fence aesthetics	To maintain consistency of fencing on Lot 1 when gate and fence is interrupted due to construction of rail the entirety of Lot 1 Paint Mine Road to be fully upgraded.	<p>ARTC note that the issue relates to boundary fence aesthetics.</p> <p>In Queensland, most of the land required to deliver Inland Rail will be compulsorily acquired (resumed) by the Department of Transport and Main Roads (DTMR) on behalf of the Queensland Government. The resumption process will be carried out in accordance with the <i>Acquisition of Land Act 1967</i> (Qld). This legislation sets out the process for acquisition, landowner rights and the assessment of compensation. Issues relating to gates and fences will be addressed by this process and on a case by case basis.</p> <p>Details regarding land acquisition and consultation processes for the Project are outlined in Chapter 8: Land Use and Tenure and Appendix E: Consultation Report.</p>	Chapter 8: Land Use and Tenure Appendix E: Consultation Report
167	167.0004	Private	Land Use and Tenure		Loss of farming land	To be dually compensated and have opportunity for land swap.	<p>Chapter 8: Land Use and Tenure, Section 8.6.2 states that where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld) (refer to the EIS). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance.</p> <p>Costs attributable to Compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> ▶ Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation. ▶ Costs related to the purchase of replacement comparable land. ▶ Storage and removal costs. ▶ Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. 	Chapter 8: Land Use and Tenure Section 8.6.2
167	167.0005	Private	Landscape and Visual Amenity		Noise and visual pollution	nil.	<p>As summarised in Chapter 24: Draft outline Environmental Management Plan, the following mitigations in response to dust, noise and visual potential impacts include:</p> <p>Development of an Air Quality and Dust Management Plan prior to construction commencing (Chapter 24: Draft Outline Environmental Management Plan). The Plan will include the following measures, tailored to be specific to the construction methodology, once confirmed:</p> <ul style="list-style-type: none"> ▶ Minimise major dust-generating activities, e.g. blasting or material loading/unloading, during high wind speeds where practicable and unwatered ▶ Routing roads away from sensitive receptors wherever practically possible ▶ Restricting vehicle speeds on unsealed haul roads to reduce dust generation, e.g. to sign-posted speeds on public roads or to construction site speed limits on construction tracks (nominally 40 km/hr—to be determined through consultation with the relevant local government and documented in the Traffic Management Plan within the CEMP. <p>Landowners will be notified in advance of the commencement of maintenance activities in an area proximal to them. This notification will be in accordance with community notification procedures established for the Project and will provide information on the types of activities that will occur, indicative scheduling and the potential impacts that may be experienced (e.g. generation of dust).</p> <p>Regarding noise and vibration potential impacts, in circumstances where mitigation within the rail corridor is not found to be feasible, and all other mitigation options are exhausted, property controls will be investigated and implemented (Chapter 24: Draft Outline Environmental Management Plan):</p> <ul style="list-style-type: none"> ▶ The implementation of architectural treatments and other measures to private property would likely be subject to the agreement of commercial and legal terms between ARTC and the property owner ▶ Property noise-control measures may include: <ul style="list-style-type: none"> ▶ Architectural property and construction treatments subject to an inspection of each individual property to confirm its suitability for the implementation of noise control treatments ▶ Upgrading existing property fencing subject to landowner agreement ▶ Relocation of property assessed on a case-by-case basis, subject to assessment, to ensure there would be a notable improvement to the noise environment at the relocation site. <p>During Construction, visual values will be mitigated through (Chapter 24: Draft Outline Environmental Management Plan):</p> <ul style="list-style-type: none"> ▶ Minimising the height of all stockpiles to the greatest extent possible to reduce their visual impact. ▶ Temporary treatments (such as hoardings and screens) to site compounds and non-resident workforce accommodation will be considered to assist in reducing visual impacts of temporary infrastructure and sun glare within close proximity of sensitive receptors (particularly townships including Yelarbon, Brookstead, Pampas and Pittsworth, and road networks). These include opportunities to use features on temporary fencing/hoarding. This will include art-based treatments to assist with screening the works from the public and using information boards (or similar) to educate the public about the construction works <p>During Operation, in response to legitimate complaints, consider additional control measures, such as screening of sensitive receptors.</p> <p>As summarised in Chapter 24: Draft Outline Environmental Management Plan, ARTC commits to continue to consult with potentially impacted landowners through the Detailed Design and Construction Works stages and agree on outcomes to minimise property access impacts. This includes where property access adjoins state and local government roads.</p> <p>During operation, the rail maintenance access roads will be available for use by emergency vehicles in the event of an incident.</p> <p>Where legal access to a property is permanently affected and a property has no other legal means of access, alternative access to and from a public road will be provided to an equivalent standard, where feasible and practicable.</p> <p>The suitable design treatment for interfaces between the Project and private accesses will be developed in consultation with the relevant landholder, on a case-by case basis (Chapter 24: Draft Outline Environmental Management Plan).</p>	Chapter 24: Draft Outline Environmental Management Plan
167	167.0006	Private	Traffic and Transport		Highway access	To have Paint Mine Road upgraded to bitumen surface to Lot 15 entry.	<p>ARTC note the preference for a bitumen surface on the existing gravel road. Paint Mine road is a Toowoomba Regional Council road, where the technical standards for the design and construction of this road will be as per TRC planning policy. Changes to road use is managed through TRC infrastructure team. ARTC is in consultation with TRC regarding the impact on local council roads. Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts and highlights mitigation measures for pavement damages to local government roads. The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings (not volumes), of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. This is the case for Paint Mine Road and as a result, ARTC is in ongoing discussions TRC on pavement impact and road maintenance arrangements.</p>	Appendix AA: Traffic Impact Assessment Section 5.6
168	168.0001	Private	Surface Water	Flood immunity	The submitter is concerned about the Section 142.6 to 146 km between the Condamine River and Yandilla. He highlights that a 1.8 km long rail bridge foundation across Hall Road (138 km to 142 km) and 46 group of culverts at almost 3 km long in the Section 139.37 km to 142.58 km can cause changes in peak water levels, direction and velocity of flood waters, changes in duration of inundation, flood flow distribution, block water flow as a result of debris accumulation and intensify soil erosion. The submitter is concerned that in this scenario plenty of debris and weeds run into our land Lot 1 DY492, Lot 2 DY492 and Lot 38 DY853 comparing to existing hydrologic history. The situation will become worst if heavy rainfall occurs. Additionally gravels used in rail lines will flow into the surrounding paddocks in an event of flooding, damaging agricultural machinery and creating other operational issues. He also feels that existing design on number of culverts may be far away from enough to handle flood water break out at Condamine and Grass Tree Creek.	Install screens on culverts to filter debris and weeds. Culverts clean up management and execution plan should be built, but the submitter doubts its efficiency during flooding. Possibly Rail Bridge will be the best option all the way across Condamine Flood Plain. The submitter also want an opportunity to comment on the finalised report of the international flood expert panel, Senate Inquiry and other drafts to the EIS.	<p>Bridge and culvert numbers and openings have been designed to pass a 1% AEP flood, in line with Australian industry guidelines and best practise.</p> <p>With respect to ongoing maintenance of culverts, ARTC as the operator of Inland Rail, will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway > 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as detailed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
168	168.0002	Private	Groundwater	Directly impacted landowner	The submitter talks about the Section between 143 to 146 km between the Condamine River and Pampas. The submitter is concerned about the drilling impacts of foundation structures intercepting the shallow aquifers supplying water to Millmerran, Pittsworth, Brookstead & Southbrook townships and their surrounds, various localities including Pampas and surrounding areas, and on agricultural irrigation, stock water and domestic use.	nil.	<p>The drilling of foundation pilings associated with bridges is unlikely to cause any permanent impacts to groundwater other than temporary impacts during the Construction Works stage. Pilings will be of a sufficient spacing to prevent permanent impact to groundwater flow and will be constructed using cured in place (CIP) technique in which concrete slurry is pumped through a hollow stem auger concurrently as soil/rock is brought to the surface (Chapter 15: Groundwater, Section 15.6.3). Only minor volumes of groundwater are anticipated to be brought to surface using the CIP method (e.g.5 to 10 litres per 20 m deep auger hole). No active dewatering is anticipated. The spacing of the pilings is such that impediment of groundwater flow is unlikely and not expected.</p> <p>Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The baseline groundwater dataset, in addition to regular groundwater monitoring during the Construction Works and Operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting from aspects of the Project (see the proposed groundwater management and monitoring program (GMMP) in the revised draft EIS, Chapter 15: Groundwater, Section 15.7.3 for a detailed approach to monitoring for impacts during construction).</p>	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.6.3 Section 15.7.3
168	168.0003	Private	Traffic and Transport	Directly impacted landowner	The interference to farming operations due to increased traffic frequency and deteriorating condition of Hall Road during the construction phase of the project.	nil.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties Chapter 8: Land Use and Tenure, Section 8.5.1 and Table 8-51. The agreements may include:</p> <ul style="list-style-type: none"> ▶ measures to minimise property impacts, including on agricultural operations ▶ specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible ▶ measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities ▶ required adjustments to affected structures. <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-51
168	168.0005	Private	Flooding	Directly impacted landowner	Change in flood flow distribution, velocity of flood water and intensify soil erosion result in decrease of our cropping production and significant devaluation of our properties.	nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report – Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their draft report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>In order to support this, additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report – Volume 2 and the online digital platform.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
169	169.0002	Private	Traffic and Transport		Impacts on contractor movements during constructions including disruption to livestock and dust suppression.	To co-ordinate works in consultation with landowner and to ensure dust suppression is used. To ensure the quality of the access track is maintained throughout and after completion of construction works.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>Further, revised draft EIS Appendix AA: Traffic Impact Assessment Section 5.12.3 details ARTC commitments to a Construction Environmental Management Plan and Traffic Management Plan. A CEMP will be prepared prior to construction commencing by the construction contractor. The CEMP will include a TMP, attached as an Appendix to the CEMP. The TMP will reflect the finalised TIA, undertaken once a construction contractor has been appointed and construction routes are finalised. It will be developed in consultation with DTMR, the relevant LGA, Department of Education, affected stakeholders and an accredited road safety auditor. The plan will also take into account communications received and will be aligned with the Construction Community and Stakeholder Management Plan. The TMP will identify the impacts that construction traffic is likely to have on the transport infrastructure and detail ameliorative measures required to mitigate all identified impacts of the Project. This may include potential temporary or permanent intersection works. The TMP will detail measures to:</p> <ul style="list-style-type: none"> Safely manage traffic when undertaking works in the road reserve Minimise traffic delays resulting from the development/construction Manage construction vehicles entering and exiting the site Maintain satisfactory property access Minimise disruption to adjacent properties Minimise disturbance to the environment Meet the requirements of legislation and codes of practice regarding traffic management Cater for special events <p>Finally, ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 5.12.3
169	169.0004	Private	Traffic and Transport		Access into private property to access rail alignment	To ensure all impacts the contractor causes during construction be repaired and negotiated prior to construction completing.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>Further, revised draft EIS Appendix AA: Traffic Impact Assessment Section 5.12.3 details ARTC commitments to a Construction Environmental Management Plan and Traffic Management Plan. A CEMP will be prepared prior to construction commencing by the construction contractor. The CEMP will include a TMP, attached as an Appendix to the CEMP. The TMP will reflect the finalised TIA, undertaken once a construction contractor has been appointed and construction routes are finalised. It will be developed in consultation with DTMR, the relevant LGA, Department of Education, affected stakeholders and an accredited road safety auditor. The plan will also take into account communications received and will be aligned with the Construction Community and Stakeholder Management Plan. The TMP will identify the impacts that construction traffic is likely to have on the transport infrastructure and detail ameliorative measures required to mitigate all identified impacts of the Project. This may include potential temporary or permanent intersection works. The TMP will detail measures to:</p> <ul style="list-style-type: none"> Safely manage traffic when undertaking works in the road reserve Minimise traffic delays resulting from the development/construction Manage construction vehicles entering and exiting the site Maintain satisfactory property access Minimise disruption to adjacent properties Minimise disturbance to the environment Meet the requirements of legislation and codes of practice regarding traffic management Cater for special events <p>Finally, ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stage to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 5.12.3
169	169.0005	Private	Air Quality	Aquatic fauna	Dust during construction as a result of cuttings within close proximity of house	Regular house and work shed wash downs, tank cleaning, internal cleaning and cleaning of the roof as required. Where required, air conditioning installed to minimise requirement for windows to be opened.	<p>Dust is generated by earthworks activities, such as cuttings and changing of ground levels. However, construction dust mitigation measures are available and have been recommended to minimise emissions and reduce the potential for impact at the submitter's residence (Chapter 12: Air Quality, Section 12.6).</p> <p>Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). The assessment of construction has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households) (Chapter 12: Air Quality, Section 12.51).</p> <p>The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. With the inclusion of the recommended mitigation measures, including mitigation measures for earthworks (water sprays, etc) (refer Section 12.6 in Chapter 12: Air Quality), it is expected that the significance of construction dust impacts on human health and nuisance/amenity will be low or negligible.</p> <p>Further information on the assessment of construction dust impacts for the Project is available in Section 12.32 and Section 12.51 of Chapter 12: Air Quality. Section 12.6 of Chapter 12: Air Quality presents the mitigation measures which have been recommended for the Construction Works stage of the Project. The recommended mitigation and management strategies are included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Based on the results of the air quality assessment for the Construction Works stage, it is expected that the significance of construction dust impacts on human health and nuisance/amenity will be low or negligible with the inclusion of recommended mitigation measures. On this basis, cleaning of individual dwellings and sheds, and the installation of air conditioning is not considered to be required to mitigate air quality impacts.</p>	Chapter 12: Air Quality Section 12.32 Section 12.51 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan
169	169.0006	Private	Project scope		Concerns about decrease to breeding and feeding capabilities as a result of train line.	Study into impacts on livestock.	<p>ARTC acknowledges impacts to rural properties and their operations, which will continue to be addressed through the Detailed Design stage.</p> <p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. During the property acquisition process, ARTC would seek to secure agreements with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties (Chapter 8: Land Use and Tenure Section 8.5.1 and 8.6.2). The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
169	169.0007	Private	Project scope		Fencing.	Exclusion fences. Or a Gate into the train line.	<p>ARTC note that the issue relates to fencing, Fencing standards and ARTC's approach to fencing, to a reference design level, are provided in Chapter 5: Project Description, Section 5.4.12.</p> <p>In Queensland, most of the land required to deliver Inland Rail will be compulsorily acquired (resumed) by the Department of Transport and Main Roads (DTMR) on behalf of the Queensland Government. The resumption process will be carried out in accordance with the Acquisition of Land Act 1967. This legislation sets out the process for acquisition, landowner rights and the assessment of compensation. Issues relating to gates and fences will be addressed by this process and on a case by case basis.</p>	Chapter 5: Project Description Section 5.4.12
170	170.0001	Private	Hazard and Risk		There are shade lines on our land, government roads and neighbours land that act as a chemical drift barrier. Our neighbours to the south and south west grow cotton so we are restricted to what chemicals we can use through their growing season. We can't use 24D chemicals but other contact chemicals are used. We need a safety barrier in case of sudden wind change during spraying. Removing trees will restrict the ability to control certain weeds costing us more money and less cropping options.	Don't remove trees, Plant new trees.	<p>Vegetation that is within the Project footprint will only be removed if it is necessary to enable the safe construction and operation of the Project. The railway corridor is required to be kept free of mature vegetation for operational safety reasons. However, vegetation that is within the Project footprint, but outside of the railway corridor, will be retained where possible. Landowners are encouraged to notify ARTC engaged with stakeholders of property-specific requirements, such as retention of screening trees, via:</p> <p>Community-Related Enquiries Ph: 1300 550 402 E: enviroline@artc.com.au</p> <p>ARTC engaged with stakeholders is committed to rehabilitating land within the Project footprint that is disturbed during construction. For land outside of the railway corridor, this rehabilitation will include the selective planting of trees. The Contractor will be required to develop a Rehabilitation and Landscaping Management Plan as part of the Construction Environmental Management Plan (CEMP) to guide rehabilitation works for the Project. This is specified throughout Chapter 24: Draft Outline Environmental Management Plan. The Rehabilitation and Landscaping Management Plan will be developed in consultation with all affected landowners to ensure that property specific landscaping requirements, such as the need to replace or augment screening trees, are reflected in the plan.</p>	Chapter 24: Draft Outline Environmental Management Plan
170	170.0002	Private	Traffic and Transport		We work in with neighbours and socialise with neighbours so would like access over railway track to remain as already indicated on flyover.	Leave plans as are.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
170	170.0003	Private	Land Use and Tenure	Directly impacted landowner	We run cattle on cropping country during dry periods or when rotations allow us to. The construction areas cut off access to shelter and existing watering points so animals will not get water or have shade. Cattle may not feed near work carried out costing additional money.	Compensation along with moving water points.	<p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.1, where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties. Where disruption to water supply occurs, crossing points will be provided or the relocation of dams or irrigation systems will be undertaken in consultation with landowners.</p> <p>Chapter 8: Land Use and Tenure, Section 8.6.2, states that where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2 of the revised draft EIS for further detail.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads. Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. The potential for changes to groundwater access. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.1 Section 8.6.2
170	170.0004	Private	Traffic and Transport	Directly impacted landowner	Our front gateway is down as a working area which will give us no access to our farmhouse as it blocks our road in.	Leave front gateway clear or alternative Access.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
170	170.005	Private	Air Quality	Directly impacted landowner	Dust from traffic during construction can contaminate crops such as chickpeas meaning they will have to be graded before sale.	Compensation for any losses.	<p>The Construction Works stage of the Project will generate dust emissions. However, construction dust emissions will be short-term, temporary and transient, as works progress along the length of the alignment. As works will be transient along the length of the Project, construction dust will not be generated along the entire alignment for the duration of the construction program (Chapter 12: Air Quality, Section 12.51).</p> <p>However, to minimise the potential for significant dust impacts, mitigation measures have been recommended for the Construction Works stage of the Project as presented in Section 12.6 of Chapter 12: Air Quality. Proper application of these recommended mitigation measures at the source of construction activity is expected to significantly reduce dust emissions and effectively manage air quality impacts, including at agricultural land uses. A number of mitigation measures are recommended to reduce dust emissions from vehicle travel, including planning of haul routes, and the application of water sprays to unsealed road sections.</p> <p>Section 12.6 of Chapter 12: Air Quality presents the mitigation measures which have been recommended for the Construction Works stage of the Project. These mitigation measures will be included in the Construction Environmental Management Plan (CEMP) as described in Chapter 24: Draft Outline Environmental Management Plan for the Project. A number of mitigation measures are recommended to reduce dust emissions from vehicle travel, including planning of haul routes, and the application of water sprays to unsealed road sections. With the implementation of the recommended mitigation measures, significant impacts to crops are not expected due to dust from vehicle traffic and financial compensation is not expected to be required.</p>	Chapter 12: Air Quality Section 12.51 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan
170	170.006	Private	Hazard and Risk	Directly impacted landowner	Some jobs like spraying only have a small timeframe in which they have to be done. What period do we have to give contractors to spray chemicals on croplands?	Flexibility to carry out farm work during construction.	There will be no restrictions on a landholder's ability to conduct activities, including farm work, on private property outside of the Project footprint during construction.	N/A
170	170.007	Private	Traffic and Transport	Level crossing	Kildonan Road is one road that I believe needs to have a rail over road of a level crossing. I do realise that studies have been done as to the amount of vehicles on road but this has been done through one of the biggest droughts in recorded history. Cotton growers have been working on less than 10% production and grain farms like myself have not produced crops for 3 years. With all our produce now looking like it will come back into full swing along with the local feedlot looking at doubling from 20000 head of cattle to 40000 head of cattle, the road could have 5 times more traffic on it in the coming years. I don't think this has been taken into consideration.	Rail over road or road over rail.	<p>ARTC have worked closely with GRC as part of the design process, particularly regarding inputs into the assessment. GRC provided their own traffic count information which formed the baseline of the assessment. From a future proofing perspective, ARTC use 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by council and factor in the known developments in this area.</p> <p>The traffic and transport assessment showed that even if Kildonan Road peak hourly volumes were doubled, it would remain as a LOS A (see definition in Section 5.5.2 of Appendix AA: Traffic Impact Assessment). This is also a reflection of the relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040.</p> <p>ARTC, in collaboration with GRC, explored other design options for Kildonan Road including grade separation. This location did not meet the automatic grade separation criteria detailed in the Public Level Crossing Treatment Methodology (provided in Appendix BT), including topography-based criteria, nor any other metrics triggering an automatic grade separation. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope, as the cost to grade separate is grossly disproportionate to the benefits.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the AS1742.7-2016. All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>It is acknowledged the submission estimates '5 times more traffic' in the coming years, as the region emerges from a drought. ARTC will continue to work collaboratively with GRC as detailed design progresses regarding the proposed level crossing design solution.</p>	Appendix AA: Traffic Impact Assessment Section 5.5.2
170	170.008	Private	Traffic and Transport	Road safety	This road is a gravel road and becomes very dangerous when there is additional traffic on it. There will be additional traffic along it for the construction process as it runs all the way along the railway track for approx.25 km. This road will become very dangerous for local residents along with contract workers, especially at peak times like harvest.	Bitumen Road	<p>Appendix AA: Traffic Impact Assessment , Section 5.6 discusses pavement impacts and highlights mitigation measures for pavement damages to local government roads. It is noted that residents have raised concern regarding maintenance of Yelarbon Kurumbul Road during construction works.</p> <p>The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted. In the case of Yelarbon Kurumbul Road, EIS assumptions suggest this threshold will be reached during construction. As a result, ARTC has had ongoing discussions with the Road Manager, Goondiwindi Regional Council (GRC) on pavement impact and road maintenance arrangements. The agreed arrangements to deal with impacted pavements as a result of construction will be in agreement between GRC and ARTC.</p> <p>Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.</p> <p>Appendix AA: Traffic Impact Assessment , Section 5.2 discusses the road safety impact assessment completed on all roads, whereby conditions such as a gravel surface are considered with mitigation measures provided. It is noted that only parts of Yelarbon Kurumbul Road are gravel with both ends of the road being bitumen. Further Appendix AO of revised draft EIS Appendix AA: Traffic Impact Assessment provided the full road link safety assessment completed for each construction route used within the Project and includes greater detail of proposed mitigation measures. This is given below:</p> <p>*Assessment of the traffic volume required to determine if sealing the road and/or shoulders is required. Potential treatments of line marking delineation or edge lines should be considered during road safety audit on detailed design. If no sealing is warranted, road should be designed and formalised to a suitable gravel road standard. Regular maintenance and vegetation clearance to be carried out to maintain adequate sight lines and maintain clear zones. Requirements for road upgrades such as, grading and gravel standard design, sealing, installation of drainage infrastructure, clear zone creation, to be finalised during Detailed Design stage as well as updated during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMP and TGS documents, also in accordance with the Manual of Uniform Traffic Control Devices: Part 3 – Works on Roads' and TMR's specification "MRTS02 – Provision for traffic" requirements. This should reflect updated construction duration estimates and final peak hour volumes. Possible TMP mitigations may include speed reductions and advisory signage, and should be placed as per MUTCD Part 3.</p>	Appendix AA: Traffic Impact Assessment Section 5.2 Section 5.6 Appendix AO
170	170.009	Private	Social Impact Assessment		Yelarbon Silo Art has been voted the best silo art in the country. Will noise barrier walls effect the tourist and local aspect of the silo art that the community has invested in?	Unsure of way around it.	<p>Revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16.4, provided as part of the draft EIS proposed a concept noise barrier in Yelarbon to mitigate railway noise impacts on homes and businesses. The noise wall design in Yelarbon will be progressed during detailed design with consideration of the silo art, hydrology and pedestrian connectivity.</p> <p>Depending on its location, height, materials and length, a noise wall could affect views to the Yelarbon silo art from the viewing platform on the other side of the rail line. Noise mitigation impacts will need to be balanced against potential impacts on views to the Yelarbon silos art which is a recent enhancement to Yelarbon's character and a tourism attraction.</p> <p>Detailed design for a noise wall in Yelarbon would involve consultation with Yelarbon stakeholders and as a first preference, would avoid impacts on views to the silos. If this would compromise noise mitigation, alternative mitigations for discussion with the Yelarbon community may include architectural treatment to sensitive receptors that would experience noise impacts, or moving the viewing platform.</p>	Appendix W: Noise and Vibration Assessment - Railway Operations Section 16.4
171	171.001	Community Group	Stakeholder engagement		The consultation process did not provide an appropriate forum where concerns were acknowledged and addressed. Of concern, is the way in which the ARTC undertook community meetings. It was observed that these meetings were undertaken in a perfunctory manner, with little consideration to the concerns being raised by the community and regularly making large changes (including to routes) without any consultation or consideration of community opinion/expertise. Of great concern, was the committee's tendency to ignore viable alternate routes and regularly denying due process by holding meetings in locations that did not allow for appropriate community consultation.	nil.	<p>During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD 2016). Subsequent to the submission of the EIS to the Coordinator-General, at the request of the Deputy Prime Minister, in 2020, ARTC prepared the Inland Rail Information Paper, which considered alternative Project alignments via Whetstone State Forest and Cecil Plains.</p> <p>It concluded that the alternative alignment would result in a longer distance and transit time, increased costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timetables. The methodologies employed in the Information Paper were reviewed by GTA Consultants and were found to be suitable. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details.</p> <p>The area covered by the Inner Darling Downs CCC is aligned with the Groom Federal Electorate. Meetings were hosted by different townships within the electorate - Brookstead, Southbrook, Pittsworth, Gowrie Junction - to ensure that different community members have the opportunity to attend the meeting as observers.</p> <p>Community Consultative Committee meetings are run by an independent chair. Committee members have the opportunity to nominate agenda items for discussion at the meetings. In accordance with the committee charter, ARTC provides updates on the various components of the Project, which can be technical in nature. ARTC prepares detailed minutes of the meetings and slides, which are available on the Inland Rail website following endorsement by the members, and, where requested, provides the slide packs to members for their further consideration. Committee members also have the opportunity to ask questions and seek clarification on any points during the meeting or via phone or email after the meeting.</p>	Appendix E: Consultation Report
171	171.002	Community Group	Flooding	Aquatic fauna	The Multi Criteria Analysis Framework that put forward by ARTC is fundamentally flawed and is based on miscalculations and a subjective methodology. The Independent Expert Panel has ignored local knowledge and previous independent experts.	nil.	<p>As described in Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken in Section 2.8. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of good quality agricultural land that cannot be avoided.</p> <p>Where changes to flooding and geomorphology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 14: Flooding and Geomorphology). The FIOs applied to assess the Project impacts including erosion and scouring potentials are presented in Chapter 14: Flooding and Geomorphology, Table 14-4, Section 14.6.3. The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted Flood Impact Objectives (FIOs) to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landowners. This is also further discussed in the revised draft EIS, Chapter 8: Land Use and Tenure, Section 8.5.1.</p>	Chapter 2: Project Rationale Section 2.8 Chapter 8: Land Use and Tenure Section 8.5.1 Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
171	171.004	Community Group	Noise and Vibration	Operational noise	According to the ARTC, Australia has adopted the FRA guidelines for rail safety regulations and standards in Australia. ARTC also advised that Train Horns will generate 130 Dcb when sounded. This is at odds with the FRA regulations that state 115Dcb is the maximum allowed.	nil.	<p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS, Section 12.2 of Appendix W: Noise and Vibration Assessment - Railway Operations. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns, refer to Section 16.10 of Chapter 16: Noise and Vibration and Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 12.2 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
171	171.0005	Community Group	Project alignment		ARTC have failed to appropriately consider alternate route options. Various stakeholders (referenced in submission) have provided significant evidence and data that supports that the ARTC have not undertaken appropriate due diligence in route selection and consideration. Whilst it is acknowledged that an inquiry was ordered due to increasing public pressure, it is noted that the enquiry did not appear to be independent as it relied completely on ARTC input and used no external expertise.	nil.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Clifton and Wyreema and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ the outcomes of the multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
171	171.0006	Community Group	Social Impact Assessment		The project is causing undue stress to many in our community taking a toll on their health and wellbeing. Adding to this stress is the fact that the Social Impact Assessment to be provided in the EIS is being conducted by FFJV. Given the misleading information that FFJV have provided to this community over the past three years, it is difficult to imagine that the Social Impact Assessment they will provide within the EIS will be a true and correct account of the current community concerns and social impact.	nil.	<p>Appendix X: Social Impact Assessment, Section 8.5.3 acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landowners concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access local and independent mental health support services.</p> <p>The Social Impact Assessment has been conducted by a Social Impact Assessment specialist with more than 35 years' experience. ARTC is not aware of any incidences of misleading information being provided by FFJV.</p>	Appendix X: Social Impact Assessment Section 8.5.3
171	171.0007	Community Group	Flora and Fauna	Koala	The literature is clear as to the nexus between rail projects and the death of local wildlife, including koalas. There is an abundance of koala colonies along the route proposed by ARTC. Despite being listed by the Federal Government as a threatened species under the Environmental Protection and Biodiversity Conservation Act, the ARTC have proposed a route that would have disastrous consequences for the local koala population and its habitat. History has shown that koala relocation is not successful (as evidenced by the recent Coomera Town Centre development.) and should not be considered as an appropriate solution.	nil.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Aus ecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the Draft Koala Management Plan (DKMP). The DKMP proposes specific management and mitigation measures for koalas during both construction and railway operations.</p> <p>The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken in Section 2.8. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>In consideration of increased train movements and risk of collision, recent studies have demonstrated that a very small proportion of injuries to koalas is caused by trains (1.3%) (Henning et al., 2015). Therefore, the increase in train movements to along the Project alignment presents a relatively low risk and is unlikely to significantly impact the species.</p> <p>(Reference source: Henning, J., Hannon, C., McKinnon, Larkin, R., & Allavena, R. 2015. The causes and prognoses of different types of fractures in wild koalas submitted to wildlife hospitals. Preventive Veterinary Medicine, Vol 122, Issue 3, Pages 371-378.)</p>	Chapter 2: Project Rationale Section 2.8 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
172	172.0001	State Agency	Groundwater		Chapter 13, Table 13.1, row 11.58 of the draft Environmental Impact Statement (dEIS) details the need to identify Resources Operations Plans under the Water Act.	<p>Amend</p> <p>Amend existing text to that shown in bold and delete that shown in strikethrough:</p> <ul style="list-style-type: none"> ▶ 11.58 Identify relevant Water Plans and Resource Operations Plans Water Management Protocols under the Water Act. ▶ e) a water management protocol <p>Reason</p> <ul style="list-style-type: none"> ▶ Resource Operations Plans are now called Water Management Protocols. ▶ The Table lists different types of authorities to take water, however a water management protocol is not an authority. A water management protocol is subordinate legislation that is used by the Department or Regional Development, Manufacturing and Water (DRDMW) in the management of water licences and water allocations in this area. A Water Management Protocol is not an authorisation. 	The revised draft EIS has been reviewed and updated accordingly. See Chapter 15: Groundwater, Table 15.1.	Chapter 15: Groundwater Table 15.1
172	172.0002	State Agency	Groundwater		Chapter 13, Table 13.2 of the dEIS refers to groundwater units located within the assessment area and references Border Rivers Fractured Rock, Condamine Fractured Rock and Condamine Alluvium.	<p>Amend</p> <p>Amend existing text to that shown in bold and delete that shown in strikethrough:</p> <ul style="list-style-type: none"> ▶ Border Rivers Fractured Rock ▶ Condamine Fractured Rock ▶ Condamine Alluvium Upper Condamine Alluvium (Central Condamine Alluvium) <p>Reason</p> <p>Reference is made to the Condamine Alluvium. This is not how it is referred to in the Water Plan (Condamine and Balonne) 2019. The Condamine Alluvium area intersected by the proposed Inland Rail route falls under the Upper Condamine Alluvium (Central Condamine Alluvium).</p> <p>The Border Rivers Fractured Rock is an underground water unit under the Water Plan (Border Rivers and Moonie) 2019 and does not fall within the impact assessment area. It is located to the east of the project area.</p> <p>The Condamine Fractured Rock is an underground water unit under the Water Plan (Condamine and Balonne) 2019 and does not fall within the impact assessment area. It is located to the east of the project area.</p>	The revised draft EIS has been reviewed and updated accordingly. See Chapter 15: Groundwater, Table 15.1.	Chapter 15: Groundwater Table 15.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
172	172.0003	State Agency	Groundwater		Chapter 13, Table 13.5 of the dEIS describes features associated with the Surat Basin and Clarence-Moreton Basins.	<p>Advice The Gubberamunda Sandstone has not been included here as a formation nor aquifer within the Kumbarella Beds sequence.</p> <p>Under the previous Water Plan (Water Resource (Great Artesian Basin) Plan 2006), the Kumbarella Beds was the recognised geological name for the group of aquifers and as such, was managed as a group. Under the new Water Plan (Great Artesian Basin and other Regional Aquifers) 2017, the Kumbarella Beds has been separated into the separate formations for management purposes. The Gubberamunda Sandstone is identified as a management unit with both stock and domestic licences and volumetric licences attached to land parcels located within the vicinity of the Inland Rail route.</p> <p>Surrounding CSG wells, Blu Indigo 2A and Indigo 2, show the presence of Gubberamunda Sandstone in their stratigraphic logs. Additionally, the Updated Geology and Geological Model for the Surat Cumulative Management Area 2019 contains mapping of the interpreted thickness of Gubberamunda Sandstone that clearly shows the unit is present in the area</p> <p>Further consultation is required between DRDMW and ARTC to discuss this potential difference in interpretation.</p> <p>The EIS should acknowledge the presence of water licences to take from the Gubberamunda Sandstone that are currently issued and the existence of this significant aquifer in this area.</p>	The revised draft EIS has been reviewed and updated accordingly. See Chapter 15: Groundwater, Table 15.1.	Chapter 15: Groundwater Table 15.1
172	172.0004	State Agency	Groundwater		Chapter 13, 13.6.5 of the dEIS states The search identified 439 registered bores within the impact assessment area of which 156 were excluded from further evaluation due to an absence of data.	<p>Advice DRDMW requires clarification to establish if these bores are considered as part of any make good arrangements. Despite no information on depth/strata, there are still in many cases a working bore and may even be attached to a current water licence. All 439 registered bores need to be included as part of impact assessment and make good arrangements implemented.</p>	The revised draft EIS identified 197 registered bores with no aquifer or bore construction attributes. Therefore, these bores were excluded from the EIS groundwater conceptualisation (see Chapter 15: Groundwater, Section 15.5.4). However, these bores were still considered as part of the bore survey and the make-good process outlined in Section 15.7.4 of Chapter 15: Groundwater will apply to all of these bores. Registered and Project investigation bores in the groundwater impact assessment area are detailed in Section 15.2a-h.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Section 15.2a-h
172	172.0005	State Agency	Groundwater		Incorrect references in text and figures. Data listed for the Main Range Volcanics is missing approx.10,000 ml of entitlement	<p>Correct references and figures provided for Chapter 13, Table 13.7 Summary of groundwater entitlements for the impact and surrounding area. Include data li for the Main Range Volcanics unit</p>	The summary of groundwater entitlements has been updated as part of the revised draft EIS. Chapter 15: Groundwater, Table 15.7 has been updated to reflect groundwater entitlements associated to real properties (lot/plan) that fall within the impact assessment area only.	Chapter 15: Groundwater Table 15.7
172	172.0006	State Agency	Groundwater		Chapter 13, Table 13.15 of the dEIS states where a groundwater bore is expected to be decommissioned or have access to it impaired as a result of the Project, make good measures will be agreed in consultation with the affected landowner. Such measures may include the provision of an alternate water supply/new bore.	<p>Include Provide details of the options that will be provided to landowners regarding a new bore and acknowledgment that an authorisation to drill may need to be obtained.</p> <p>Advice It is recommended ARTC clarify if the new bores are/are not replacement bores under the relevant code (Code for Self-assessable development of replacement bores).</p> <p>In some cases, and depending on what aquifer the bore is tapping, a new bore may need to be assessed for its possible impacts to groundwater dependent ecosystems and existing entitlements. Authority to drill may also be required under a development permit.</p>	Reference in the revised draft EIS has been updated (Edition 4, 2020). To be included in the make good process framework. As stated in Table 15-20 of Chapter 15: Groundwater, currently the water supply strategy does not include provision for new groundwater bores or licences in order to minimise impacts to aquifers and water users. Table 15-17 (Section 15.6.3) of Chapter 15: Groundwater, outlines that "the establishment of new groundwater bores for sourcing construction water is not considered a practical sourcing solution due to: <ul style="list-style-type: none"> ▶ The existing pressure placed on groundwater as a resource in the region ▶ The licencing and approval requirements to establish new groundwater bores ▶ The flow rates required to meet construction water demands may not be appropriately met through reliance on groundwater ▶ Challenges regarding the management of groundwater quality ▶ Aquifers in the region are close to full allocation through existing water entitlements. However, the use of existing sustainable groundwater allocated entitlements to supplement the construction demand for the Project may be considered if owners of registered bores have capacity under their water entitlement that they wish to lease to ARTC or the Contractor under a water trading agreement. Therefore, the volumes extracted would be within the existing licencing limits and the extent of drawdown experienced would be localised and consistent with that which is currently permissible for each licenced bore. Construction water sources will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS) and will be documented as part of the Construction Water Plan. Potential sources include supplemented, unsupplemented and recycled sources. The current construction water sourcing strategy is summarised in Chapter 5: Project Description, Section 5.6.24. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.6.3 Table 15-17 Table 15-20 Appendix B5: Construction Water Requirements
172	172.0007	State Agency	Land Use and Tenure		Chapter 5, 5.17 of the dEIS states The Project has the potential to result in direct and permanent impacts to land use and tenure within the Project footprint, with the majority of impacts occurring on commencement of land acquisition and construction. Potential impacts to land use and tenure associated with the Project are assessed in Chapter 7: Land Use and Tenure.	<p>Advice Unless held by a local government or a mining lease holder, a water licence is attached to a parcel of land.</p> <p>Under Section 43 of the Water Regulation 2016, if a water licence is attached to part of land taken under the Acquisition of Land Act 1967, the licence may be amended by the Department of Regional Development, Manufacturing and Water if the source of water is still able to be taken on the main property. If the remaining part of land no longer adjoins the original source, on the day the acquisition happens the water licence is taken to be held jointly by all owners of the land to which the licence applies.</p> <p>This situation remains in force until the joint owners apply to amend and/or transfer the jointly held water licence under the Water Act 2000.</p>	Advice is noted. Chapter 8: Land Use and Tenure, Section 8.6.2, states that where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.2 of the revised draft EIS for further detail. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> ▶ Landowners' needs regarding access to the properties and the closure of private roads. ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. ▶ The potential for changes to groundwater access. 	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
172	172.0008	State Agency	Surface Water		Chapter 5, Pages 5-99 and 5-100 of the dEIS state the following: <ul style="list-style-type: none"> ▶ Page 5-99 Alternative surface water storages, identified in or otherwise, may be accessed for the sourcing of construction water subject to obtaining the appropriate water allocation or licence under the Water Act 2000 (Qld). ▶ Page 5-99 Consultation with the Dumaresq-Barwon Border Rivers Commission, SunWater, GRC and TRC during the process will be required to establish the availability of water from dams and weirs in proximity to the Project ▶ Page 5-100 Extraction of water from a watercourse typically requires: ▶ A water allocation, water licence or water permit. Applications for resource entitlements are assessed against relevant criteria in the Water Act and relevant water resource plan and resource operations plan. 	<p>Amend Replace existing text to that shown in bold and delete that shown in strikethrough: <ul style="list-style-type: none"> ▶ Page 5-99, Alternative surface water storages, identified in or otherwise, may be accessed for the sourcing of construction water subject to obtaining the appropriate access to construction water from water markets, water licences or water permits under the Water Act 2000 appropriate water allocation or licence under the Water Act 2000 (Qld). ▶ Page 5-99, Consultation with the DRDMW, Dumaresq-Barwon Border Rivers Commission, SunWater, GRC and TRC during the process will be required to establish the availability of water from dams and weirs in proximity to the Project. ▶ Page 5-100, A water allocation, water licence or water permit. Applications for resource entitlements are assessed against relevant criteria in the Water Act and relevant water resource plan, and resource operations plan and resource operations plan, water management protocols and Water supply schemes operation manuals. Reason <ul style="list-style-type: none"> ▶ Amendment required to reflect potential avenues to access water to use for construction (i.e. via water markets, water licences or water permits under the Water Act 2000). ▶ ARTC should consult with DRDMW regarding access to water to use for construction. ▶ Amendment required to reflect water planning document changes. Information on water planning and policy is available on the Business Queensland website: Water Business Queensland </p>	Discussion regarding construction water in Section 5.6.24 of Chapter 5: Project Description has been revised substantially since release of the draft EIS and the text referenced by this submission has either been modified or removed. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements. ARTC has consulted with each of the potential water suppliers identified in Section 5.6.24, Appendix E: Consultation Report.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements Appendix E: Consultation Report
172	172.0009	State Agency	Surface Water		Name of river - Chapter 12, Table 12.14 of the draft EIS has an entry that states: <ul style="list-style-type: none"> ▶ Condamine River (Northern Branch) (Ch 148.7) 	<p>Amend Replace existing text to that shown in bold and delete that shown in strikethrough: <ul style="list-style-type: none"> ▶ Condamine River (North Northern Branch) (Ch 148.7) Reason Amendment required in order to accurately reference this watercourse as per the Queensland Globe watercourse identification map.</p>	References to this watercourse have been amended throughout the revised draft EIS to "Condamine River (North Branch)". Changes to the reference design since release of the draft EIS means that the chainage at this watercourse is now Ch 150.0.	N/A
172	172.0010	State Agency	Groundwater		Chapter 12, 12.7.1.3 of the draft EIS states: <ul style="list-style-type: none"> ▶ Water Plans are part of the Basin Plan 2012 (Cth) and set new rules on how much water can be taken from the system (as licenced water harvesting). 	<p>Amend Replace existing text to that shown in bold and delete that shown in strikethrough: Water Plans are part of the Basin Plan 2012 (Cth) and set new rules on how much water can be taken from the system (such as licenced water authorised water harvesting).</p> <p>Reason Amendment required to reflect that not all water is managed as licenced water harvesting</p>	Chapter 13: Surface Water has since been revised, wording relating to Water Plans and the Basin Plan 2012 (Cth) are outlined in Section 13.22 Regulatory Environment, Table 13-1. Details regarding these plans are listed under the Water Act 2007 (Cth) as follows: The Water Act 2007 (Cth) provides the legislative framework for ensuring that the Murray-Darling Basin is managed in accordance with Australia's national interests. The Water Act 2007 recognises that Australian States manage water resources within their jurisdictions that occur within the Murray-Darling Basin. The Project traverses the Murray-Darling Basin Plan, the Basin Plan and the Queensland Water Plan, as described below: The Murray-Darling Basin Plan (Basin Plan) is prepared under the Water Act 2007 (Cth) subparagraph 44(3)(b)(i) and is the overarching plan to manage the Basin as a whole connected system. The Basin Plan was agreed to in 2012 by all the Basin jurisdictions, including the Queensland Government. Under the Basin Plan, each Basin State and Territory government is required to prepare a water resource plan for each catchment identified in the Basin Plan. The Queensland Water Plan (Condamine and Balonne) 2019 and Water Plan (Border Rivers and Moonie) 2019 have each been accredited by the Australian Government minister as being consistent with the Basin Plan.	Chapter 13: Surface Water Section 13.22

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
172	172.0011	State Agency	Surface Water		Chapter 12, pages 12-111 and 12-112 of the draft EIS has two instances where it is stated: <ul style="list-style-type: none"> Extraction of water from a watercourse typically requires: <ul style="list-style-type: none"> A water allocation, water licence or water permit. <p>Applications for resource entitlements are assessed against relevant criteria in the Water Act and relevant water resource plan and resource operations plan.</p>	Amend Replace existing text to that shown in bold, italicise that shown in italics and delete that shown in strikethrough: <ul style="list-style-type: none"> Extraction of water from a watercourse typically requires: <ul style="list-style-type: none"> A water allocation, water licence or water permit. <p>Applications for resource entitlements are assessed against relevant criteria in the Water Act 2000, the Water Regulation 2016, relevant water resource plans, water protocols and Water Supply Schemes operations manuals and resource operations plan.</p> <p>Reason Amendment required to reflect water planning document changes.</p>	Wording has been amended in the revised draft EIS as per suggestion. Information regarding sourcing of construction water and associated approvals (allocations, licences, permits) are described in detail in Chapter 5: Project Description, Section 5.6.24. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
172	172.0012	State Agency	Editorial		Where requirements under the Water Act 2000 are discussed, the draft EIS references the Department of Natural Resources, Mines and Energy as the responsible agency.	Amend Where the Department of Natural Resources, Mines and Energy is referenced in relation to requirements under the Water Act 2000, it is recommended the department name be changed to the Department of Regional Development, Manufacturing and Water. <p>Reason The Water Act 2000 was previously regulated by the former Department of Natural Resources, Mines and Energy. As a result of recent machinery of government restructure, the Water Act 2000 is now regulated by the Department of Regional Development, Manufacturing and Water.</p>	A detailed review of all Government department names has been undertaken throughout the EIS to ensure currency and continuity.	N/A
172	172.0013	State Agency	Approvals/ conditions/ recommendations		The Terms of reference compliance Table states The assessment and supporting information are considered sufficient for the Coordinator General and administering authority to decide whether approvals sought through the EIS process should be granted.	Any approvals for water related development will need to be applied for after the Coordinator General's evaluation report is issued. There is insufficient information in the EIS to enable DRDMW to assess and condition appropriately for any approvals and authorisations that may be required under the Planning Act 2016 and/or Water Act 2000.	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the Detailed Design and Construction Works stage (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.21).	Chapter 3: Legislation and Project Approvals Process Section 3.21 Table 3-2
173	173.0001	State Agency	Traffic and Transport	Construction traffic	Construction traffic should avoid school bus routes, school zones.	Include Education Department as a stakeholder in the development of the Traffic Management sub-plans due to impacts on safety around schools and along bus routes	Appendix AA: Traffic Impact Assessment, Section 5.10.4 details the impact of the Projection school bus routes. The EIS commits that, given that the school bus routes do not tend to have designated bus stops, apart from the termini, prior to the Construction Works stage of the Project, suitable mitigation measures for all of the affected services, including the location of bus stops, should be identified in consultation with bus operators, local councils, impacted schools, Department of Education and the local community and be documented in the TMP to ensure school bus safety and understand any impacts to journey times, if any. These stakeholders should be consulted as part of the Project and made aware of the proposed changes to the school bus routes. The construction Contractor will also be made aware of the presence of school bus routes and bus stops and their operational hours as part of the Project induction process. The Education Department will be included in review of Traffic Management Plans.	Appendix AA: Traffic Impact Assessment Section 5.10.4
173	173.0003	State Agency	Surface Water	Flood immunity	Schools and associated grounds and infrastructure are flood sensitive receptors.	Department of Education to be a key stakeholder due to impacts on school infrastructure, playgrounds, outdoor learning and recreation spaces including ovals.	A full review of Flood Sensitive Receptors (FSR) has been carried out within the areas that were hydraulically modelled. Yelarbon State School has been included in the FSR list and can be identified by FSR IDs - MCB_ID_293, MCB_ID_294, MCB_ID_295, MCB_ID_425 and MCB_ID_536.	N/A
174	174.0001	Private	Groundwater	Private groundwater bore/s	ARTC has stated that the drawdown of bores (that is the depth that water will be available from) will drop down from between 15 m to 80 m. This will mean that the majority of bores utilising the aquifers drained by ARTC will become dry. Once water is struck during drilling of bores the drilling stops as it is expensive. Few bores would be 80 m deeper than the water level. ARTC have also said they will decommission landowners bores. This contravenes the TOR statement of volumes and quality of water resources are maintained, and current lawful users of water are not adversely affected by the development'. See Appendix 1 of submission for bore logs.	ARTC need to be conditioned to make good on all bores that experience lower water levels.	The water level was predicted to be previously reduced by -12 m, and up to a lateral distance of 80 m. This has now been updated with revised predictive modelling results, to -9 m vertically and up to a 43 m horizontally from the cut (rail centreline) where the water level is being reduced to create a safe working environment (Chapter 15: Groundwater, Section 15.6.2). Bores are required to be decommissioned to enable the Project. The Project utilises the existing South Western Line and Millmerran Branch Line rail corridors as much as possible (71.2 kilometres), thereby minimising the need to develop land and impact on water resources that have not previously been subject to disturbance for transport infrastructure purposes. ARTC has engaged with water users/landowners likely to be impacted to determine an appropriate make-good mitigation strategy for bores impacted by the rail alignment on a case-by-case basis. Details of the proposed potential make-good process and potential measures are detailed in Section 15.7.4 and Table 15-20, Chapter 15: Groundwater of the revised draft EIS.	Chapter 15: Groundwater Section 15.6.2 Section 15.7.4 Table 15-20
174	174.0002	Private	Groundwater	Private groundwater bore/s	Bores cannot be decommissioned, and the alignment of the rail needs to change to ensure that no bores are decommissioned. Bores are the lifeblood of the inner downs. The small lot sizes and the black soil mean that there is not sufficient space for dams and that dams will not hold water anyway due to the porous nature of the high-quality soil. The alignment of the track needs to be on existing corridors which will not require excavation and dissection of the water Table or blasting which will fragment the aquifer. Deep drainage will only exacerbate the drawn down of bores and in addition this will mean that water on those properties is lost in perpetuity as the water is moved deeper into the underground system.	ARTC should be prohibited from deep draining the seepage into the rail line.	The preferred alignment for the proposed rail corridor was identified based on an analysis of multiple corridor options, with the final preferred alignment presenting the strongest benefits for industry and the community in general, while minimising impacts to the natural and rural landscape. The location of the alignment was selected in part as it is located within the existing Southern Freight Rail Corridor, gazetted as a future rail corridor in 2010. However, some excavations (cuts) will be required to achieve suitable landform within the Border to Gowrie section. Where bores are located within the Project footprint and are required to be decommissioned for construction of the Project, ARTC will ensure 'make good' measures are agreed in consultation with the affected landholder (see Section 15.7.4 and Table 15.20 of Chapter 15: Groundwater). These 'make-good' measures will be commensurate with the level of impact anticipated and may include replacement bores on the same property. As modelling has indicated drawdown will likely only extend a maximum of 43 m horizontally from the deepest cut, impacts to bores outside the groundwater investigation area are unlikely. Groundwater monitoring will continue throughout the Construction Works and Operations stages of the Project to monitor for potential impacts as a result of the Project. Only temporary (during construction) and isolated drawdown in the vicinity of deep cuts is anticipated. No regional groundwater drawdown/wider impact on the aquifer is anticipated. See predictive modelling results in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.	Chapter 15: Groundwater Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6.3
174	174.0003	Private	Flooding	Directly impacted landowner	ARTC state the hydrologic and flooding assessment undertaken has demonstrated the Project is predicted to result in impacts on the existing flooding regime that generally comply with the flood impact objectives. This statement can only be true if ARTCs flood impact objective was to ensure wholesale destruction of farmlands. The map indicates that more than 50 per cent of my property will be inundated with flood water. In addition, ARTC state, changes to the duration of the design flood events within the Gowrie Creek floodplain are negligible. Flood Map 1 shows the depth of water changes. The water will increase by greater than 50cm, and probably much more but ARTC did not include a scale greater than the 50 cm depth. There is no map in the EIS indicating directional flow of water either prior to the construction of the line or after completion.	ARTC need to redo the modelling to include directional flow, directional changes and sediment changes. ARTC should also be required to undertake this assessment with the alignment heading further north across dryland property and join the QR line at a reduced angle, to demonstrate the lesser impacts of this alignment on flood impacts.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. In order to support this, additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report – Volume 2 and the online digital platform. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
174	174.0004	Private	Land Use and Tenure		ARTCs claim that the Regional Planning Interests Act does not apply. The Project should be rejected based on the definition of a regulated activity from the act. Other rail lines in Queensland have needed to comply with this act. In fact ARTC claim that 25% of the rail freight on Inland Rail will be coal, which may make the RPI act applicable from a Resource Activity perspective as well. Submission includes map showing strategic cropping overlay on submitter's property. In addition, the inner downs is considered a Priority Agricultural Area in the Darling Downs Regional Plan. This plan also has Millmerran, Pittsworth and Southbrook are Priority Living Areas.	The project route should be reconsidered a regulated activity due to the considerable negative impacts on strategic cropping. The impact on the Millmerran, Pittsworth and Southbrook priority living areas needs to be addressed by ARTC.	As discussed in Chapter 8: Land Use and Tenure, Section 8.2, the Regional Planning Interests Act 2014 (Qld) regulates areas of regional interest and requires a resource activity or regulated activity proposed to be located in an area of regional interest to obtain a regional interests development approval. As the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014 (Qld), the Act does not apply. As such, the Regional Planning Interests Act 2014 (Qld), and the alignment's impact on the matters protected under Regional Planning Interests Act 2014 (Qld), do not have a bearing on the EIS process, nor is the approval of the EIS contingent on the assessment of the Project's impact on areas of regional interest (Chapter 3: Legislation and Project Approvals Process, Section 3.426). Notwithstanding this, the Project's impact on areas of regional interest protected under the Regional Planning Interests Act 2014 (Qld) has been assessed to provide a comprehensive assessment of the Project's impact on agricultural, environmental and societal values present within both the temporary and permanent disturbance footprints of the alignment. To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9, which provides a total of areas of regional interest in relation to the Project footprints. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations. Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners (Chapter 8: Land Use and Tenure, Section 8.6.2). The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.2 of Chapter 8: Land Use and Tenure). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises.	Chapter 3: Legislation and Project Approvals Process Section 3.426 Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.2 Table 8-46

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
174	174.0005		Economics		ARTC have not undertaken any defensible economic analysis of the project, either providing financial benefits of outlining financial losses due to land becoming sterilised or loss on income to local communities when landowners do not spend money locally. This is supported by the Economic Chapter being the shortest at 39 pages of the 14,000 pages of the EIS. ARTC stakeholder engagement has been substandard. Submitter includes further details about their farming operations to demonstrate ARTC has understated impacts and has not attempted to work with landowners on a solution.	ARTC need to provide a proper economic analysis that includes the economic losses that will be imposed on rural communities.	<p>ARTC acknowledges that due to the nature of the Project, the operational economic impacts of the Project will only be fully realised once all components of Inland Rail Program individually and in isolation of the whole Program will not capture all the benefits expected to be generated upon completion of the entire Melbourne to Brisbane connection. . Therefore, as agreed with Queensland Government costs have not been included in the Economic Technical Report.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. Note, only the direct impacts of the Project have been captured in the EIS. Follow on impacts such as those related to discretionary spending by agricultural producers have not been captured in Appendix Y: Economic Impact Assessment.</p> <p>Due to the extensive Project footprint, numerous engineering, planning and environmental technical aspects of the Project, needed to be investigated as part of the revised draft EIS and be communicated to key stakeholders. This has included, but not limited to the following areas:</p> <ul style="list-style-type: none"> ▶ Directly impacted landowner consultation on alignment development ▶ Land acquisition ▶ Hydrology and flooding ▶ Noise ▶ Traffic, transport, emergency access and road-rail interfaces ▶ Indigenous stakeholder consultation ▶ State forest revocation process ▶ Development of the draft SIA ▶ Economic impact assessment ▶ Non-resident workforce accommodation facilities ▶ Groundwater assessment ▶ Construction water ▶ Utilities/engineering interfaces ▶ Fauna connectivity ▶ Development of the draft Koala Management Plan. <p>Consultation has been undertaken with a cross-section of stakeholders to share information and receive feedback on multiple specific technical studies and assessments to prepare the revised draft EIS. This has included a wide range of stakeholders from: Elected representatives, Commonwealth and State agencies, Regional Councils (Goondiwindi and Toowoomba Regional Councils), Border to Gowrie Community Consultative Committees, community and conservation groups, businesses and agricultural enterprises, directly and indirectly impacted landowners. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> ▶ Direct impacts on properties e.g. severance and loss of productive land ▶ Impacts on property accesses and connectivity, including the location of level crossings on private roads ▶ Impacts on the movement of stock, water, produce and equipment. 	<p>Chapter 18: Economics Section 18.7 Section 18.12 Appendix E: Consultation Report Appendix Y: Economic Impact Assessment Section 5.5</p>
174	174.0006	Private	Stakeholder engagement	Directly impacted landowner	When the IR corridor was released, submitter contacted ARTC in good faith to ask a series of questions. After meetings with ARTC both on farm and in their Toowoomba office, they would not answer any of my questions and did not seem to understand farming and definitely did not understand irrigation farming where the water infrastructure needs to be connected to the paddocks in order to irrigate.	nil.	<p>Chapter 6: Stakeholder Engagement, Section 6.6 and Appendix E: Consultation Report, Section 5.1 details the engagement undertaken with landowners in the study area, including letter, phone calls, and one-on-one meetings. Landowners have also been involved in broad-scale community engagement activities such as community information sessions and CCC meetings.</p> <p>ARTC notes that following ongoing direct engagement with the submitter the design in across the submitter's property was altered to improve access across the alignment and minimise impacts to agricultural operations.</p> <p>During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD 2016).</p> <p>ARTC will continue to consult with landowners during future stages of the Project to ensure they are fully informed of the design process and the proposed mitigation measures specific to their respective properties.</p>	<p>Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 5.1</p>
174	174.0007	Private	Project alignment		The farm adjacent to the submitter's property is dryland and meets the creek at a better angle for a bridge. The submitter proposed that the line be moved west to less productive land, and ARTC refused saying they would just be impacting a different land holder. Surely if the IR is to provide economic benefit it should also be designed to protect the current productive areas of land. However, after saying they could not move the line, ARTC have in fact moved the line in numerous cases to benefit big business. Again, this demonstrated ARTC's poor decision making skills.	If alternative alignments are to be considered, ARTC should have set criteria that are transparent and defensible so everyone can understand why the line can be moved for one person and not another.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 meters (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. <p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>
174	174.0008		Economics		ARTC is very sly, one sided and determined to shut down every small business, lifestyle property and self-funded retiree investment property. There are numerous people affected here and ARTC will not listen. There are 440 dissected properties in our Section of the IR, which will be rendered useless. Traditionally the owners of the smaller blocks spend considerable sums of money in advancing their properties, and owners of the larger ones spend considerable sums of money on bulk agricultural inputs. However, if we work on an average over the whole 440 blocks of \$100,000 a year in expenditure, that is \$44,000,000 removed from the regional economy in expenditure. This of course does not account for any income that would also be spent in the local area. In addition, the 1,100 blocks sitting in the 2 km corridor will have reduced expenditure as these property values will be negatively affected also, and people won't spend money on improving them if they are going to lose money when they come to sell.	This needs to be accounted in the business case.	<p>The purpose of the EIS process is to inform decision-makers and the public of the environmental consequences of implementing a proposed Project. The impact assessment identifies, predicts, and analyses impacts on the physical environment, as well as social, cultural, economic and health impacts. The proponent is required to produce documentation describing the proposal, the potential environmental impacts and how these impacts would be managed. The economic analysis provided in this revised draft EIS response is tailored to consider these impacts and appropriate mitigation measures.</p> <p>Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Qld Government costs have not been included in Appendix Y: Economic Impact Assessment.</p> <p>The Investment Case (Inland Rail Programme Business Case 2015) evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution.</p>	
174	174.0009	Private	Stakeholder engagement		ARTC's community consultation is problematic. Submitter provides examples of consultation activities that suit ARTC but not the community. Community Consultation Committees do not provide genuine opportunities for the community to ask questions.	<ol style="list-style-type: none"> 1. Re- examine the route with an overlay of economic impacts, so that the money lost to regional community is accounted for; 2. If the route must proceed, then detailed route must minimise the impacts on high production farms and be moved to less productive blocks of land 3. Sack ARTC so IR can be managed professionally like a major project should be 4. Have the new builder of the rail engage in proper consultation and be willing to change the route when there is overwhelming evidence that the chosen route will only result in a disaster. 	<p>During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD 2016). Subsequent to the submission of the EIS to the Coordinator-General, at the request of the Deputy Prime Minister, in 2020, ARTC prepared the Inland Rail Information Paper, which considered alternative Project alignments via Whetstone State Forest and Cecil Plains.</p> <p>It concluded that the alternative alignment would result in a longer distance and transit time, increased costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The methodologies employed in the Information Paper were reviewed by GTA Consultants and were found to be suitable. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Appendix E: Consultation Report details the breadth of community engagement which supported the draft EIS and revised draft EIS development. Section 5.12 in Appendix E: Consultation Report details the engagement undertaken to inform the Social Impact Assessment (Appendix X: Social Impact Assessment) and Social Impact Management Plan (SIMP). This included engagement through one-on-one landowner meetings, Community Consultative Committees, interactive mapping (Social Pinpoint), fact sheets, website, social media, newsletters, community information sessions and the 1800 free call phone number.</p> <p>ARTC will continue to engage with stakeholders, including key emergency and social services in the region, through the finalisation of the revised draft EIS and development of detailed design. Appendix X: Social Impact Assessment, Section 8 outlines the Project's Social Impact Management Plan (SIMP), which describes how the Project will engage with communities and stakeholders including emergency services, to mitigate social impacts, enhance Project benefits for the SIA study area, and monitor and report on the delivery and effectiveness of management measures.</p>	<p>Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 2 Section 5.12 Appendix X: Social Impact Assessment Section 8</p>
175	175.0001	Private	Flora and Fauna	Koala	The EIS fails to identify the extent of the known and significance of koala habitat that exists adjacent to the proposed IR corridor from Millmeran to Gowrie. It is known that the territory in which koalas move is extensive, therefore it is concerning that the project's construction will pose such a threat to their movements and biodiversity. Pittsworth Landcare and local residents have identified the extent of the habitat and significance of the local koala population.	<ol style="list-style-type: none"> 1. Failure to reroute the alignment will destroy koala habitat for 100s of kilometres. 2. All attempts must be made to preserve koala habitat. 	<p>Appendix O: Matters of National Environmental Significance Report outlines the assessment undertaken to determine the degree of significance of impacts on koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of habitat critical to the survival of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan (DKMP). The DKMP proposes specific management and mitigation measures for koalas during both construction and railway operations.</p> <p>The preferred location for the proposed Project rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken in Section 2.8-2.10. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Report Appendix P: Fauna Connectivity Strategy</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
175	175.0002	Private	Flora and Fauna	Koala	Train movements, noise and machinery used during construction will severely impact koala movements. Vegetation will be destroyed, which is their food source, creating an unviable environment to ensure their survival.	<ol style="list-style-type: none"> 1. Failure to reroute the alignment will destroy koala habitat for 100s of kilometres. 2. All attempts must be made to preserve koala habitat. 	<p>Appendix O: Matters of National Environmental Significance Report outlines the assessment undertaken to determine the degree of significance of impacts on koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan (DKMP).</p> <p>Noise impacts to listed threatened species that are associated with both construction and railway operations has been assessed in the revised draft EIS. Refer to EIS Chapter 11: Flora and Fauna. Specific management and mitigation measures for koalas during both construction and railway operations have been proposed for koalas in the DKMP and in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>The preferred location for the proposed Border to Gowrie rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken in Section 2.8-2.10. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 11: Flora and Fauna</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 5.10</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
175	175.0003	Private	Flora and Fauna	Koala	Relocation of koalas cannot be done without causing severe mortality, so any proposal to use offsets as a mitigation measure would not be viable. In many instances a site for relocation would be many kilometres from their existing ecosystems. Attempts at relocation in other parts of Australia have resulted in high mortality to this species.	<ol style="list-style-type: none"> 1. Failure to reroute the alignment will destroy koala habitat for 100s of kilometres. 2. All attempts must be made to preserve koala habitat. 	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>The DKMP provided specific details how ARTC propose to deal with koalas that are located within the construction footprint. Translocation of koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in of Chapter 24: Draft Outline Environmental Management Plan. In addition, a standalone Appendix N: Draft Fauna Management Plan has been provided in the revised draft EIS. The fauna management plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>In instances where a significant residual impact has been identified as per the EPBC Act Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the koala to achieve no net loss. ARTC has prepared a revised draft Appendix Q: Queensland Environmental Offset Delivery Strategy that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the koala to achieve no net loss.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 5.10</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p> <p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
175	175.0004	Private	Flora and Fauna	Koala	Failure to reroute the alignment will destroy koala habitat for 100s of kilometres.2. All attempts must be made to preserve koala habitat.	<p>There will be 11 trains per day and 8 per night, which will impact on koala movements. ARTC fails to identify in the EIS the details of the design of structure that they contend would facilitate koala movement. ARTC states that land cleared for agriculture and pastoral purposes has led to koalas vacating the area insinuating that the rail line will not make things worse. This indicates one of many instances where the EIS lacks credibility.</p>	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process.</p> <p>Post the release of the Border to Gowrie EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>The DKMP provided specific details how ARTC propose to deal with koalas that are located within the construction footprint. Translocation of koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. In addition, a standalone Appendix N: Draft Fauna management plan has been provided in the revised draft EIS. The fauna management plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>In instances where a significant residual impact has been identified as per the EPBC Act Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the koala to achieve no net loss. ARTC has prepared a revised draft Appendix Q: Queensland Environmental Offset Delivery Strategy that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES. Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the koala to achieve no net loss.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 5.10</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p> <p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
176	176.0002	Private	Noise and Vibration	Operational rail noise	Height of structures over the Oakey to Pittsworth Road and Lochabar Road will mean operational noise will be disturbingly audible to more residents than identified in the EIS. No detail is given of the dimensions of noise barriers. Effectiveness of noise barriers is questionable.	<ol style="list-style-type: none"> 1. EIS does not comply with the TOR 2. EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design. 3. True noise and vibration impact on Pittsworth cannot be determined until detailed design. 4. Review alignment - the route is unsuitable. 	<p>ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment (Chapter 16: Noise and Vibration, Section 16.8). Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS project alignment. The study area is substantially larger than normally applied on transport infrastructure projects, which usually only consider an area large enough to capture the closest receptors. The DTMR Interim Guideline only requires an impact area of up to 150 metres from the railway.</p> <p>As noted in Section 2.8 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p> <p>Regarding proposed solution, it is not feasible to place a night-time curfew on trains travelling through the towns of Pampas, Brookstead and Pittsworth, as one of the remits of Inland Rail is to move freight between Melbourne and Brisbane within 24 hours. However, ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
176	176.0004	Private	Traffic and Transport		Five laybys of varying area to be located in close proximity to Pittsworth will result in considerable machinery movements - another source of noise and dust and a potential impediment to local traffic movement.	<ol style="list-style-type: none"> 1. EIS does not comply with the TOR 2. EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design. 3. True noise and vibration impact on Pittsworth cannot be determined until detailed design. 4. Review alignment - the route is unsuitable. 	<p>The revised draft EIS has been updated to address potential impacts from construction noise and vibration to sensitive receptors along the Project alignment. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during the construction stage of the Project.</p> <p>The construction noise impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case 15-minute construction noise levels based on a preliminary construction methodology (Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The revised draft EIS has identified the potential for sensitive receptors to be impacted by construction stage noise and vibration in exceedance of the nominated criteria. During detailed design, further detailed engineering, and acoustic assessments, including noise modelling, will be undertaken and will consider sensitive receptors in the vicinity of the Project. Specific and reasonable mitigation measures will be developed and implemented following this detailed assessment. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
177	177.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals from alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakley to Pittsworth Road and Lochabar Road will mean that Operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4. The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>ARTC acknowledge the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the Construction Works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the Detailed Design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13.2. It is identified that any receivers with 12 metres from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the Detailed Design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration – Railway Operations Section 13</p> <p>Section 17</p>
177	177.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsaleable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	The EIS is required to assess the Project alignment as detailed throughout the revised draft EIS Chapter 5: Project Description.	Chapter 5: Project Description
177	177.0005	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC have failed to engage with residents and inform them of the impacts of the train noise and vibration. 	The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>Engagement about noise and vibration impact is ongoing as the Project progresses its noise modelling, noise impact assessment and baseline monitoring as part of the development of the EIS and reference design.</p> <p>As part of the noise and vibration consultation program, all directly impacted landowners and sensitive receptors identified in the assessment in 2019 were contacted via letter and/or face-to-face meeting. The engagement plan also identified indirectly impacted stakeholders, with an interest or concern about noise along the alignment. Nine community information sessions were held to provide the wider community with an opportunity to engage with ARTC about noise and vibration.</p> <p>Following the public notification of the draft EIS in early 2021, ARTC has continued to meet with landowners regarding noise, how noise modelling works and what mitigation may be considered.</p> <p>Further assessment of rail noise and vibration was undertaken as part of the revised draft EIS. Details are provided in Appendix V: Construction noise and vibration and operational road traffic noise technical report and Appendix W: Operational railway noise and vibration technical report.</p> <p>Additional noise consultation will be undertaken in 2024 with all sensitive receptors identified in the revised draft EIS. ARTC recognises that ongoing and transparent engagement with landowners and community on noise will be critical during detailed design as the design development continues and additional modelling is conducted.</p> <p>ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	<p>Appendix E: Consultation Report Section 5</p>
178	178.0001	Private	Stakeholder engagement	Directly impacted landowner	ARTC's consultation has not been appropriate, it has been superficial. The records and experience of the submitter's family with floods over a century has been ignored by ARTC. Submitter's concerns are validated by the findings published in the draft report of the Independent Panel of Experts for Flood Studies in Queensland and Toowoomba Regional Council's proposed submission to the CG on the draft EIS.	Do not accept ARTC's draft EIS and the final EIS- request ARTC revise its draft EIS to address the flaws identified by affected landowners. Panel of Experts and Senate Inquiry require the revised draft EIS to be released for public comment - visit submitter's property and properties of their neighbours to see evidence of the past flooding events and understand the risks of the unknowns, omissions and other-reliance on desktop assumptions in ARTC's flawed draft EIS.	<p>ARTC notes that it has undertaken extensive engagement with the submitter, including visiting the submitter's property, and those of his neighbours, on multiple occasions with a number of technical experts to view evidence of flooding events.</p> <p>Since submission, significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the floodplain crossings. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable, and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.</p> <p>ARTC will continue consultation with impacted stakeholders will continue through detailed design of the Project to ensure that alterations to the design and its impacts are communicated back to landowners. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event.</p>	<p>Appendix E: Consultation Report Section 5</p>
178	178.0002	Private	Flooding		There are multiple route options through the neighbouring DA Hall & Co properties which present varying impact scenarios that are not presented in the EIS. Therefore, there is no way to know what impacts the project will have on homes, businesses or livelihoods of local residents. It is not possible to quantify the extent of levels of future flood events and volumes of water diverted onto the submitter's property, the rates of erosion or amount of debris. ARTC has not address the TOR.	Do not accept ARTC's draft EIS and the final EIS- request ARTC revise its draft EIS to address the flaws identified by affected landowners. Panel of Experts and Senate Inquiry require the revised draft EIS to be released for public comment - visit submitter's property and properties of their neighbours to see evidence of the past flooding events and understand the risks of the unknowns, omissions and other-reliance on desktop assumptions in ARTC's flawed draft EIS.	<p>Construction and operations flood impacts on land in the Condamine River floodplain have been described in Section 14.8 of the revised draft EIS Chapter 14: Flood and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2</p> <p>Section 7.5.3</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
179	179.0001	Community Group	Social Impact Assessment	Workforce accommodation village	The proposed non-resident workforce camp at Turallin would have significant difficulties to overcome for the camp to be successful. Areas of concern include low quality, narrow, frequently flooded road requires more travel to the construction site north and south of Millmerran.	Locate the camp in the vicinity of Millmerran-Inglewood Road - distanced from populated areas of Millmerran to allow ease of travel both north and south of Millmerran and using an arterial road not a minor road. Bussing construction staff to daily workites would be less travel time. Off duty staff could also be bussed into Millmerran for shopping and recreation without impacting limited car parking spaces in town.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turallin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description Section 5.6.4</p> <p>Chapter 17: Social Section 17.5</p> <p>Appendix E: Consultation Report Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
179	179.0002	Community Group	Social Impact Assessment	Workforce accommodation village	Turalin site has poor internet/phone reception, which has been outlined by construction contractors as a huge item of need in modern work camps.	Locate the camp in the vicinity of Millmerran-Inglewood Road - distanced from populated areas of Millmerran. Phone/internet reception is more available in this location.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turalin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
179	179.0003	Community Group	Social Impact Assessment	Workforce accommodation village	Accommodation in Millmerran struggles to cope with regular maintenance shutdowns at the nearby Millmerran Power station, tourists and visitors to Millmerran for Australian Camp Oven Festival, Darling Downs Esteddfod, etc. Regularly there is no accommodation available for such a large influx of people to town but it is not regular enough for the operating of another motel or caravan park.	Locate the camp in the vicinity of Millmerran-Inglewood Road - distanced from populated areas of Millmerran - so that it can be used for tourism and business in the area once construction is completed. It may also be used by maintenance staff for Inland Rail.	<p>As described in Chapter 5: Project Description, Section 5.6.4 of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and the Millmerran area. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities and have been included in the revised draft EIS (one each in the Yelarbon and Inglewood areas). The location of the third site in the Millmerran area will be undertaken in detailed design and subject to further review and approval.</p> <p>While possible locations for non-resident workforce accommodation facilities have been identified, final locations will be subject to detailed design. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project.</p> <p>Opportunities for the future beneficial re-use of the non-resident workforce accommodation facilities, once construction has been completed, will be further investigated. This will include further consultation with the relevant Local Governments and the relevant stakeholders. As discussed in Chapter 17: Social, Section 17.5, the ARTC and Contractor will consult with TRC and landowners in the Millmerran area to identify a suitable site for the accommodation facility. The selection of the site will also be informed by consideration of any potential for impacts on the health, amenity or privacy of local community members, as well as local businesses' feedback about potential benefits for businesses (discussed below). Preliminary consultation with TRC and GRC indicated that the non-resident workforce accommodation facilities was likely to bring the benefits of local supply opportunities and workforce expenditure, and also noted the potential for workforce accommodation to leave legacy values that would increase town amenity and/or tourism potential; however, possible limitations on waste, water, and sewage infrastructure were noted.</p> <p>An engagement session with the Turalin community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facilities to be located within Millmerran Township and for further engagement from the Project. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Further consultation regarding non-resident accommodation locations will be undertaken with community, Appendix E: Consultation Report, Section 5.11.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Chapter 17: Social</p> <p>Section 17.5</p> <p>Appendix E: Consultation Report</p> <p>Section 5.11</p>
180	180.0002	Private	Social Impact Assessment		Unbelievable that the railway line will be just metres from the Brookstead State School. How will those children be able to work with the noise and vibration happening daily, and also travel to and from school with increased road risk due to the rail proximity and crossing?	nil.	<p>Assessment of the Project's potential operational noise impacts is detailed in Appendix W: Noise and Vibration Assessment - Railway Operations of the revised draft EIS and indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required.</p> <p>ARTC has engaged with Department of Education and the agreed approach is to work with the Department of Education during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. ARTC has also advised Department of Education about the need for permanent road realignments at Brookstead, and committed to consultation with the Brookstead community in the development of more detailed traffic management measures during the Detailed Design stage (Appendix X: Social Impact Assessment, Section 6.2.4).</p> <p>As further discussed in Appendix X: Social Impact Assessment, Section 7.4.1 and 8.5.8 ARTC will consult with the Department of Education and Yelarbon, Brookstead and Southbrook State Schools during the development of the detailed design and confirmation of construction methodology to:</p> <ul style="list-style-type: none"> ▶ Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks ▶ Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to local traffic during construction, any disruptions to school bus routes and traffic management measures (e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways) ▶ Conduct an audit of the affected schools' sites layouts, to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, which may include façade treatments, fence treatments or air conditioning ▶ Confirm all relevant school bus services and contact details for their operators to enable consultation with the operators ▶ Identify any specific considerations (e.g. off-campus sports or activities) which should be considered in the Project's RUMP and Traffic Management Plan. 	<p>Appendix X: Social Impact Assessment</p> <p>Section 6.2.4</p> <p>Section 7.4.1</p> <p>Section 8.5.8</p>
180	180.0003	Private	Flora and Fauna	Koala	Koala habitats along the railway line from Pampas to Southbrook will be impacted. This is the breeding ground for an extensive koala community. No ecological survey sites were taken between Pittsworth and Southbrook and no koala communities are identified at Yarranlea nor between Pittsworth and Southbrook.	Studies from Millmerran to Southbrook need to revisit surveys of and impacts on local wildlife. Specifically, EIS Chapter on flora and fauna needs to be redone to include accurate information on the koala numbers and habitat from Millmerran to Southbrook. Without accurate numbers impacts and mitigation cannot be determined in an acceptable and sustainable way.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan (DKMP).</p> <p>The Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy) provides additional information on the management and mitigation measures to ensure fauna connectivity is maintained. The strategy looks at specific listed species and proposes tailored design strategies accordingly.</p> <p>The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA). <p>As described in Section 2.8-2.10 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Section 2.12</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.10</p> <p>Section 5.1</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
180	180.0004	Private	Noise and Vibration	Operational rail noise	Detail of train signalling will only be provided in the Detailed Design phase subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS as we do not have sufficient information on potential noise issues. The EIS does not provide the necessary level of detail around noise levels and mitigation options and in itself is a failing of the TOR.	The draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on noise and vibration and social impact.	<p>Information on signalling and communications is provided in Section 5.4.14 of the revised draft EIS Chapter 5: Project Description. The Project will be operated initially using Centralised Train Control with the infrastructure installed upgradable to accommodate future deployment of the Advanced Train Management System (ATMS). ATMS is a digital train management solution with real-time monitoring of trains with GPS and mobile technology and will support ARTC's objectives of improving rail network capacity, operational flexibility, train service availability, transit times, rail safety and system reliability. Interfaces between the ARTC and QR Network, including signalling systems are subject to ongoing discussions between ARTC and QR now and during the Project's Detailed Design stage.</p> <p>With respect to operational railway noise impacts, ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS (Section 6.3 of Appendix W: Noise and Vibration Assessment - Railway Operations). The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.10 of Chapter 16: Noise and Vibration, Railway Noise Assessment and Mitigation and Management Measures.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.4.14</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 6.3</p> <p>Appendix D</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
180	180.0005	Private	Traffic and Transport		The detail of road and rail design will only be provided in the Detailed Design phase subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS as we do not have sufficient information. This in itself is a failing of stakeholder engagement and the planning and communication process.	The consultation in the Pittsworth region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on environmental and social impact.	The revised draft EIS provides detail on the road and rail design in the Pittsworth region is outlined in the EIS. <ul style="list-style-type: none"> Chapter 2: Project Rationale details the route selection for the Pittsworth area (Section 2.9.3). Chapter 5: Project Description Section 5.4.8 discusses the road rail interfaces and reference design. This is further supported by the Appendix design drawings Part 1 and 2. Appendix E: Consultation Report talks to the roads engagement in Pittsworth. Chapter 20: Traffic, Transport and Access and Appendix AA: Traffic Impact Assessment discuss all of the impacts of the road and rail design on the road network, including roads, intersections, road-rail interfaces, and accesses, as well as assessing the impacts on relevant road users and stake holders. Each other Section of the report also addresses this region based on the road and rail design set out for this area. Further, regarding road-rail interface design and updates to the reference design since this submission: <p>In 2021, eight community information sessions were held in Pittsworth to address community concerns about Project impacts, including road, rail and bridge design. Residents were engaged on design treatments for French Road and Tip Road level crossing, and grade separation design for Oakley Pittsworth Road, Quilbet Road and Dallman Road, Lochaber Road, McEwan Lane and Paint Mine Road, and Linthorpe Road. The rail bridge design at Pittsworth is a topography assisted grade separation (rail bridge over the road) at Oakley Pittsworth Road. The rail bridge spans a natural depression in the landscape as the alignment continues to rise to the highest point on the alignment towards Southbrook. Community information sessions are detailed in Appendix E: Consultation Report, Section 4.6 of the revised draft EIS.</p> ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 5: Project Description Section 5.4.8 Chapter 20: Traffic, Transport and Access Appendix AA: Traffic Impact Assessment Appendix E: Consultation Report Section 4.6
181	181.0002	Private	Social Impact Assessment		Unbelievable that the railway line will be just metres from the Brookstead State School. How will those children be able to work with the noise and vibration happening daily, and also travel to and from school with increased road risk due to the rail proximity and crossing?	nil.	Assessment of the Project's potential operational noise impacts is detailed in Appendix W: Noise and Vibration Assessment - Railway Operations of the revised draft EIS and indicates the potential for noise to exceed the assessment criteria at the Brookstead State School, where noise mitigation measures may be required.	Appendix X: Social Impact Assessment Section 6.2.4 Section 7.4.1 Section 8.5.8
181	181.0003	Private	Flora and Fauna	Koala	Koala habitats along the railway line from Pampas to Southbrook will be impacted. This is the breeding ground for an extensive koala community. No ecological survey sites were taken between Pittsworth and Southbrook and no koala communities are identified at Yarranlea nor between Pittsworth and Southbrook.	Studies from Millmerran to Southbrook need to revisit surveys of and impacts on local wildlife. Specifically, EIS Chapter on flora and fauna needs to be redone to include accurate information on the koala numbers and habitat from Millmerran to Southbrook. Without accurate numbers impacts and mitigation cannot be determined in an acceptable and sustainable way.	Appendix O: Matters of National Environmental Significance Report of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on koala populations, against the Commonwealth's EPBC Act referral guidelines for the vulnerable listed koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements.	Chapter 2: Project Rationale Section 2.8 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Section 2.3 Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Appendix P: Fauna Connectivity Strategy
181	181.0004	Private	Noise and Vibration	Operational rail noise	Detail of train signalling will only be provided in the Detailed Design phase subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS as we do not have sufficient information on potential noise issues. The EIS does not provide the necessary level of detail around noise levels and mitigation options and in itself is a failing of the TOR.	The draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on noise and vibration and social impact.	Information on signalling and communications is provided in Section 5.4.14 of the revised draft EIS Chapter 5: Project Description. The Project will be operated initially using Centralised Train Control with the infrastructure installed upgradable to accommodate future deployment of the Advanced Train Management System (ATMS). ATMS is a digital train management solution with real-time monitoring of trains with GPS and mobile technology and will support ARTC's objectives of improving rail network capacity, operational flexibility, train service availability, transit times, rail safety and system reliability. Interfaces between the ARTC and QR Network, including signalling systems are subject to ongoing discussions between ARTC and QR now and during the Project's Detailed Design stage.	Chapter 5: Project Description Section 5.4.14 Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3
181	181.0005	Private	Traffic and Transport		The detail of road and rail design will only be provided in the Detailed Design phase subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS as we do not have sufficient information. This in itself is a failing of stakeholder engagement and the planning and communication process.	The consultation in the Pittsworth region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on environmental and social impact.	The revised draft EIS provides detail on the road and rail design in the Pittsworth region is outlined in the EIS. <ul style="list-style-type: none"> Chapter 2: Project Rationale details the route selection for the Pittsworth area (Section 2.9.3). Chapter 5: Project Description Section 5.4.8 discusses the road rail interfaces and reference design. This is further supported by the Appendix design drawings Part 1 and 2. Appendix C Stakeholder Engagement Report talks to the roads engagement in Pittsworth. Chapter 20: Traffic, Transport and Access and Appendix AA: Traffic Impact Assessment discuss all of the impacts of the road and rail design on the road network, including roads, intersections, road-rail interfaces, and accesses, as well as assessing the impacts on relevant road users and stake holders. Each other Section of the report also addresses this region based on the road and rail design set out for this area. Further, regarding road-rail interface design and updates to the reference design since this submission: <p>In 2021, eight community information sessions were held in Pittsworth to address community concerns about Project impacts, including road, rail and bridge design. Residents were engaged on design treatments for French Road and Tip Road level crossing, and grade separation design for Oakley Pittsworth Road, Quilbet Road and Dallman Road, Lochaber Road, McEwan Lane and Paint Mine Road, and Linthorpe Road. The rail bridge design at Pittsworth is a topography assisted grade separation (rail bridge over the road) at Oakley Pittsworth Road. The rail bridge spans a natural depression in the landscape as the alignment continues to rise to the highest point on the alignment towards Southbrook. Community information sessions are detailed in Appendix E: Consultation Report, Section 4.6 of the revised draft EIS.</p> ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 5: Project Description Section 5.4.8 Chapter 20: Traffic, Transport and Access Appendix AA: Traffic Impact Assessment Appendix E: Consultation Report Section 4.6
182	182.0001	Private	General project opinion - negative		Draft EIS does not comply with a number of the Terms of Reference (Terms which have not been met are listed)	Rewrite draft EIS, resubmit it and readvertise it.	Additional assessments and field surveys have been conducted since submission of the draft EIS. These assessments have been used to update the revised draft EIS chapters and supporting documents in order to comply with the Terms of Reference (see Appendix A2: Terms of Reference Cross Reference Table)	Appendix A2: Terms of Reference Cross Reference Table
182	182.0002	Private	General project opinion - negative	Flood immunity	Independent Panel of Experts for Flood Studies - Report due end of 2021	The Coordinator-General should invite stakeholder comment on the Panel's findings. Panel's advice to be included in the draft EIS	The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17
182	182.0003	Private	General project opinion - negative		Senate Inquiry into Management of Inland Rail Project by ARTC and the Commonwealth Government	Coordinator-General should withdraw the draft EIS and include the findings and recommendations of the Inquiry	ARTC acknowledges the feedback received from the Senate Inquiry and continues to address the recommendations of the Report. The Australian Rail Track Corporation takes very seriously its commitment to improving the understanding and addressing of community concerns, and will continue to strive to meet and also exceed expectations in engagement with landowners, communities and stakeholders as Inland Rail progresses.	Appendix A2: Terms of Reference Cross Reference Table

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
182	182.0004	Private	Land Resources		Crop trials - any changes to the Condamine floodplain and hydrology will impact on the Tosari research facility	Model the effects of water flows on the Tosary research facility at the Yarralong Weir	<p>Construction and operations flood impacts on land in the Condamine River floodplain have been described in Section 14.8 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling methodology followed is consistent with Australian guidelines and industry standard practice and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government, to assure the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices, adequately identify and mitigate flood risks, and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree on appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 7.5.3</p>
182	182.0005	Private	Surface Water		Surface water and hydrology - Terms of Reference not addressed (listed), Appendices Q1 and Q2 on hydrology, inaccuracies in flood modelling, flawed flood model, inundation maps are unacceptable, under-prediction of flood levels.	Inaccuracy of flood modelling and hydrology - calibration, validation, community consultation around the flood model, rail design plans, (details provided of impacts and data unreliability), extent of Condamine flood plain. The Condamine Main Branch Bridge extended by 400 m; Condamine South Branch extended to Milmeran-Leyburn road; suggest bridge from Milmeran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design of this area.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2</p>
182	182.0006	Private	General project opinion - negative		Independent Panel of Experts for Flood Studies	Coordinator-General withdraw the EIS and ensure the Panel's advice on flood modelling and best practice for design of waterway structures be included in draft EIS and provided to stakeholders for comment. Coordinator-General not make a determination on the draft EIS until the release of the Panel's advice	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2</p>
182	182.0007	Private	Surface Water		Hydrologic modelling. Draft EIS does not comply with ToR. Project footprint data required.	Include an assessment of uncertainty in the flood model outputs, including predictions of peak height, flow velocity and inundation time for flood events. Project footprint data required before flood impacts can be determined.	<p>The estimated 'errors' or 'measures of uncertainty' is described in Section 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS, with a comparison of modelled versus observed flood levels presented in Table 7.31.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.3 Table 7.31</p>
183	183.0001	State Agency	Land Use and Tenure		Energy infrastructure - project will impact on existing and planned infrastructure. Identify infrastructure to be relocated, easements, properties.	Continue to work with Energy Queensland to address clashes between the route and electricity infrastructure and assets as soon as possible to identify impacts on electricity network.	<p>ARTC will continue to work with Energy Queensland during detailed design.</p> <p>Chapter 8: Land Use and Tenure, Section 8.6.3 Table 8-51 states the following:</p> <ul style="list-style-type: none"> Designs for utility protection, where necessary, will be developed in consultation with the relevant utility owner. The utility interface solutions that have been included in the reference design have been discussed with individual utility owners and are presented in Section 8.5.1 and Table 8-43 of Chapter 8: Land Use and Tenure. The exact methodology for utility modification, upgrade, diversion or realignment will be subject to confirmation once the revised reference design is finalised and will be determined through further consultation with the affected utility owners. Details on consultation undertaken through the reference design process is provided within Appendix E: Consultation Report. Outcomes of consultation with individual utility providers have been integrated into the reference design. Specific outcomes included methodologies for treating impacted utilities, providing indications of construction timeframes and the current status of the rail design. The methodology for the mitigating the impact of the interface between utilities and the alignment include modification to the utilities, upgrade of the utilities, and diversion or realignment of the rail. Specific methodologies for individual utilities will be finalised through further consultation with providers and integrated into the design of the alignment in detailed design (Chapter 8: Land Use and Tenure, Table 8-51). ARTC will continue to liaise with Energy Queensland to address interface requirements between the Project and electricity infrastructure to avoid any impacts to the local electricity network. The consultation approach is further detailed in Chapter 6: Stakeholder Engagement. The Detailed Design stage will refine any utilities relocations and these will be discussed with Energy Queensland. Effective stakeholder engagement develops and enhances awareness about the Project and establishes two-way conversations. These conversations are key for identifying and reducing risks, optimising the route alignment, securing statutory approvals, and minimising social and environmental impacts. The integration of local knowledge and stakeholder feedback is a key element in informing the detailed design. 	<p>Chapter 6: Stakeholder Engagement. Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.3 Table 8-51 Appendix E: Consultation Report</p>
184	184.0002	Private	Project alignment		The submitter has concerns about the possible closure of property accesses which crosses the rail line and the proposed relocation of the stock route crossing at Yelarbon which may run through his property based on the designs they have been provided.	All current accesses to the submitter properties must be maintained. The stock route crossing near Yelarbon may be combined with one of his property access crossings adjacent to the Cranbourne homestead	<p>Severance and fragmentation of rural properties are considered in Chapter 8: Land Use and Tenure, and the results are summarised in Section 8.5.1 and 8.5.4. It is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads.</p> <p>ARTC will continue to address this issue through the Detailed Design and Construction Works stages. In accordance with mitigation measures in Section 8.6 the design will continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Noting the primary purpose of the identified level crossing is to service the Stock Route Network and as such, consultation with the Department of Resources and Goondiwindi Regional Council is required.</p> <p>Where the proposal affects internal property access arrangements, input will be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC will consult with relevant property owners/occupants regarding alternative access arrangements, and identify any feasible and reasonable measures to minimise impacts on existing operational arrangements/properties.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6</p>
184	184.0003	Private	Groundwater	Operational water supply	The submitter has informed that there is a water pipeline crossing joining properties that he owns on both sides of the railway.	He wants the existing pipeline to be maintained to ensure continuity of water to stock on both sides of the railway.	<p>As described in Section 5.4.11 in Chapter 5: Project Description of the revised draft EIS, general utility interface treatment types are: protection, relocation/realignment, abandoned or no treatment where the reference design can be configured to avoid direct impacts to the utility.</p> <p>Privately owned utility asset impacts are considered to fall within accommodation works as part of DTMR's compulsory acquisition process. The acquisition process will be carried out in accordance with the Acquisition of Land Act 1967. This legislation sets out the process for acquisition, landowner rights and the assessment of compensation.</p> <p>ARTC will continue consultation with landowners to document and discuss options for these private utilities in the Detailed Design stage.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, utilities within the Project footprint will be surveyed and marked prior to the commencement of construction. Where protection or relocation of a utility is required as an outcome of consultation with asset owners and detailed design, these works will be undertaken prior to the commencement of construction to reduce the likelihood of impacts to those services. Protection or relocation of utilities will be conducted in accordance with relevant legislation, Australian Standards and guidelines.</p> <p>Chapter 24: Draft Outline Environmental Management Plan details that utility interface treatments that have been included in the reference design have been discussed with individual utility owners. The exact methodology for utility modification, upgrade, diversion or realignment will be subject to confirmation once the reference design is finalised and will be determined through further consultation with the affected utility owners.</p> <p>Designs for utility protection, where necessary, will be developed in consultation with the relevant utility owner and be in accordance with the relevant legislation, Australian Standards and guidelines.</p>	<p>Chapter 5: Project Description Section 5.4.11 Chapter 24: Draft Outline Environmental Management Plan</p>
185	185.0001	Private	Land Use and Tenure	Directly impacted landowner	The proposed line impacts on 2 parcels of the submitters farm land. L102 MH 643 and L4 MH 75. The submitter currently has access to these properties off the Ingleswood/Milmeran Road.	The submitter wants to continue having reasonable and practical access to these properties.	<p>ARTC acknowledges this issue, which will continue to be addressed as the Detailed Design and Construction Works stages.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.1, where possible, the Project footprint has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties.</p> <p>The detailed design for the Project will be developed to ensure that legal access for private properties is maintained.</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect property access.</p> <p>Chapter 8: Land Use and Tenure, Section 8.6.2, states that where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2 of the revised draft EIS for further detail.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads. Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. The potential for changes to groundwater access. 	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.1 Section 8.6.2</p>
185	185.0002	Private	Surface Water	Directly impacted landowner	The water supply sites for the submitter's cattle grazing business are situated in the proposed alignment. The supply to these dams comes from the western side of the road so flow would need to not be hindered and new sites would need to be found for these dams.	Nil.	<p>As stated in Table 13-16 of Chapter 13: Surface Water, the detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).</p>	<p>Chapter 13: Surface Water Table 13-16</p>
186	186.0001	Private	Surface Water	Directly impacted landowner	Submitter concerned about surface water and hydrology impacts on their property associated with the approx.2.5 km long rail bridge and approx. 1 km long with 11 groups of culverts.	nil.	<p>Flood impact objectives (FIO) have been developed for the Project to provide guidance as to the point at which a more detailed consideration of impacts is required when they are exceeded. The Project will be designed to target achieving the FIOs for events up to and including the 1 per cent AEP (without climate change) for land, receptors, and/or infrastructure that is potentially impacted by the Project. Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case-by-case basis, including through consultation with stakeholders and landowners.</p> <p>The hydrologic and flooding assessment undertaken as part of the revised draft EIS has demonstrated that the Project will result in impacts on the existing flooding regime. A summary of whole-of-Project impacts is provided in Table 14-124 of Chapter 14: Flooding and Geomorphology. Location-specific impacts are mapped throughout Chapter 14: Flooding and Geomorphology and Appendix T2: Hydrology and Flooding Technical Report - Volume II.</p> <p>A comprehensive consultation exercise has been undertaken to provide the community with detailed information and certainty around the flood modelling and the revised reference design. In future stages, ARTC will continue to work with:</p> <ul style="list-style-type: none"> Landowners who are concerned with hydrology and flooding throughout the Detailed Design, Construction Works and Operations stages of the Project Directly impacted landowners affected by the alignment throughout the Detailed Design, Construction Works and Operations stages of the Project Local councils, State government agencies and local flood specialists throughout the Detailed Design, Construction Works and Operations stages of the Project. 	<p>Chapter 14: Flooding and Geomorphology Table 14-124 Appendix T2: Hydrology and Flooding Technical Report Volume 2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
186	186.0001	Private	Land Use and Tenure		The submitter is concerned about the effect and impact that the rail will have on the environment in her property. She will lose any means of self-sufficiency that she had planned for her future years. It will completely destroy any chance that this parcel of land has had in the past to provide feed for her animals. The land will remain a desolate piece of land that will not produce anything but weeds and impact neighbouring land parcels.	Nil.	<p>Chapter 8: Land Use and Tenure, Section 8.6.1, states that where possible, the Project has been aligned such that it avoid or minimise impacts to private access, property operations and private agricultural infrastructure (e.g. water storages, groundwater bores, irrigation infrastructure, etc.). In some instances, these property features could not be avoided. Where land is fragmented or isolated, any impacts on operational farm requirements, such as impacts on access, infrastructure and services, will be managed and reinstated as soon as possible. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. Solutions may include the provision of crossing points or underpasses for access to fragmented or isolated properties. Where disruption to water supply occurs, crossing points will be provided or the relocation of dams or irrigation systems will be undertaken in consultation with landowners.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case by case basis, with consultation occurring with individual landowners to determine if the agricultural enterprise can remain viable. Refer to Chapter 8: Land Use and Tenure, Section 8.6.2 of the revised draft EIS for further detail.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties which could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads. Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority. The potential for changes to groundwater access. <p>Chapter 8: Land Use and Tenure, Section 8.6.2 states that where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld) (refer to the EIS). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance.</p> <p>Costs attributable to Compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation. Costs related to the purchase of replacement comparable land. Storage and removal costs. Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. 	Chapter 8: Land Use and Tenure Section 8.6.1 Section 8.6.2
187	187.0001	Private	General project opinion - positive		The submitter supports the Inland Rail Project due to the economic benefit this infrastructure will bring to the region both during and after construction. It will provide Toowoomba with the opportunity to establish as a nationally significant transport and logistics hub with access to air transport via Wellcamp Airport and road via the region's extensive highway network, including the new Toowoomba Bypass.	nil.	ARTC note the submitters support of the Inland Rail Project and the benefits for the Toowoomba region.	N/A
187	187.0002	Private	Social Impact Assessment		The submitter believes that there needs to be a minimum local business participation target set within the EIS for ARTC and any contractors to adhere to and regularly report on to the local community.	The definition of "local business" should be the same as the definition provided in Toowoomba Regional Council's procurement policy. Appendix X should similarly be updated to provide a minimum target for local business participation which will improve local employment outcomes for this project. TSBE (submitter), as an economic development organisation with over 450 members and an in-depth knowledge of local supply chains, is ideally placed to promote capable local contractors to work on the project and requests to be engaged to do so. Local Chambers of Commerce also have these capabilities and should be consulted. TSBE is also currently undertaking a study to understand the capability of the region's businesses to be able to work on the Inland Rail project. They will provide a list of names to ARTC.	<p>Appendix X: Social Impact Assessment, Section 8.3.1 notes that "the Project's procurement process for the construction contract enables competitive bidding for local employment targets and procurement targets, incentivising the contractors to maximise local benefits."</p> <p>As outlined in Section 8.7.3, the Contractor will be required to monitor the number and value of contracts with businesses located in the Goondiwindi and Toowoomba LGAs in line with targets, and report on outcomes.</p> <p>Appendix X: Social Impact Assessment, Section 8.6.3 notes "In recognition of stakeholders' expectations, and to ensure local business benefit from the Project, ARTC has developed subgroups to further categorise and define the geographical boundaries of what constitutes local, as discussed in Section 8.3, and will report on local supplier participation from within the Goondiwindi and Toowoomba LGAs, as well as at regional, state and national level".</p> <p>Appendix X: Social Impact Assessment, Section 8.3.3 has been updated to provide examples of and commentary regarding aspirational targets relevant to local and Indigenous procurement and workforce participation.</p> <p>ARTC welcomes further engagement and cooperation with TSBE, and has provided a formal commitment to continue to engage with TSBE, chambers of commerce and local business groups/associations Appendix X: Social Impact Assessment, Section 8.6.5.</p>	Appendix X: Social Impact Assessment Section 8.3.3 Section 8.6.3 Section 8.6.5 Section 8.7.3
187	187.0003		Economics		The submitter (TSBE) requests that the supply opportunities are shared with their organisation to improve local content outcomes, based on the Chapter 15, p.103 proposal that the "...notice of supply opportunities through Chambers of Commerce and to businesses registered through Inland Rail and/or ICN...".	The submitter organisation wants the supply opportunities are shared with their organisation to improve local content outcomes.	<p>The Project's Social Impact Assessment report (Appendix X: Social Impact Assessment) further specifies that construction contractors are required to liaise with Regional Skills Initiative Strategy officers in Goondiwindi and Toowoomba to identify potential cooperation or partnerships for the development of employment and business capacity in the region. It is identified in Appendix Y: Economic Impact Assessment (EIA) the Project is likely to offer opportunities in secondary service and supply industries (such as retail, hospitality and other support services) for businesses in close proximity to the construction footprint and non-resident workforce accommodation facilities. The expansion in construction activity has the potential to support additional temporary flow-on demand and additional spending by the construction workforce in the local community, this may lead to increased trading levels for small businesses, such as food and beverage businesses in the impact assessment area.</p> <p>ARTC will aim to maximise the benefit to local business and industry participation the following measures will be delivered by ARTC as outlined in the EIA:</p> <ul style="list-style-type: none"> Promote the business registration process on the ARTC website. Development and implementation of an AIP Plan focusing on opportunities for involvement by local business in construction and operation of the Project that involves: <ul style="list-style-type: none"> Identifying businesses within 125 km of the Project with potential capacity to supply the Construction Works stage. Engagement with local business to identify opportunities to develop and promote local business participation. Engagement with DESBT and DSDTI to develop business capacity building strategies. Continue to engage with TSBE, chambers of commerce and local business groups/associations. Consider providing the Local Content Report to the Australian Industry and Skills Committee when developed. <p>In accordance with the Australian Jobs Act 2013 (Cth), ARTC has prepared an Australian Industry Participation Plan (AIP Plan) for the Inland Rail Program which identifies how Australian entities, particularly businesses operating within the Goondiwindi, Toowoomba and nearby Local Government areas (LGAs), will be provided full, fair and reasonable opportunity to bid to supply goods and services to the Project. ARTC is also committed to ensuring that Indigenous businesses, including those operating within the SIA study area, are identified and encouraged to participate in the Project's supply chain. In recognition of stakeholders' expectations, and to ensure local business benefit from the Project, and define the geographical boundaries of what constitutes local, as discussed in Section 17.6 of Chapter 17: Social, and will report on local supplier participation from within the Goondiwindi and Toowoomba LGAs, as well as at regional, state and national level.</p> <p>The majority of supply opportunities for businesses will be with the construction contractors and their supply chains, not directly with ARTC. Tenderers for Project construction will be made aware of the need to engage local businesses and required to ensure they have a full, fair and reasonable opportunity to tender. ARTC will implement Inland Rail's Sustainable Procurement Policy (available at https://inlandrail.artc.com.au/inlandrail-sustainable-procurement-policy/) for the Project (Appendix X: Social Impact Assessment, Section 7.5.3 and Table 8-1). The Sustainable Procurement Policy aims to maximise the involvement of businesses, and includes a focus on building local businesses' capacity, to increase the number of businesses in the SIA study area that can successfully compete for Project supply opportunities (Appendix X: Social Impact Assessment, Section 8.6.3). ARTC is engaging with the Contractors regarding acceptable standards for subcontracting, and will also work with small businesses to provide information about how to engage with major contractors (Appendix X: Social Impact Assessment, Table 8-13 and 9-3).</p> <p>ARTC will also consider aspirational targets identified in the Queensland Procurement Policy (Department of Energy and Public Works, 2021) in evaluating the Contractor's targets (Appendix X: Social Impact Assessment, Section 8.3.1 and Table 8-13). The Queensland Procurement Policy's targets include:</p> <ul style="list-style-type: none"> Increasing government procurement with Aboriginal and Torres Strait Islander businesses to three per cent of addressable spend post EIS approval and during the Construction Works stage Sourcing at least 30 per cent of procurement by value from Queensland small and medium enterprises, increasing to 30 per cent during the Construction Works stage at a designated milestone date that will be determined between ARTC and the Contractor 	Chapter 17: Social Section 17.6 Chapter 18: Economics Section 18.12 Appendix Y: Economic Impact Assessment Section 5.4 - Regional Economic Analysis Section 5.5 - Business and Industry Impacts Section 6 - Impact Management Appendix X: Social Impact Assessment Section 7.5.3 Section 8.3.1 Section 8.6.3 Table 8-1 Table 8-13 Table 9-3
187	187.0004		Economics		TSBE wants commitment from the proponent on including local businesses to derive benefit from Inland Rail and build capability. They want the draft EIS to note how these economic principles and measures will be take up, outlining opportunities for local companies to bid on ongoing operational work. TSBE requests to be included in local participation outcomes and engagement during the design process due to our organisation's strong link to local supply chains.	TSBE has identified that the simplest way to enable local businesses to derive benefit from Inland Rail and build capability is to unbundle packages to require smaller financial commitments from local organisations. They want reasonable timeframes on work packages to ensure that local companies have time to develop skills and capability. Contractors need to be transparent with tender opportunities and give long enough timeframes to allow local contractors to scale-up if necessary. Also, local training organisations should be given priority to provide pre-qualification training for Inland Rail staff.	<p>The Project's Social Impact Assessment report (Appendix X: Social Impact Assessment) further specifies that construction contractors are required to liaise with Regional Skills Initiative Strategy officers in Goondiwindi and Toowoomba to identify potential cooperation or partnerships for the development of employment and business capacity in the region. It is identified in Appendix Y: Economic Impact Assessment (EIA) the Project is likely to offer opportunities in secondary service and supply industries (such as retail, hospitality and other support services) for businesses in close proximity to the construction footprint and non-resident workforce accommodation facilities. The expansion in construction activity has the potential to support additional temporary flow-on demand and additional spending by the construction workforce in the local community, this may lead to increased trading levels for small businesses, such as food and beverage businesses in the impact assessment area.</p> <p>ARTC will aim to maximise the benefit to local business and industry participation the following measures will be delivered by ARTC as outlined in the EIA:</p> <ul style="list-style-type: none"> Promote the business registration process on the ARTC website. Development and implementation of an AIP Plan focusing on opportunities for involvement by local business in construction and operation of the Project that involves: <ul style="list-style-type: none"> Identifying businesses within 125 km of the Project with potential capacity to supply the Construction Works stage. Engagement with local business to identify opportunities to develop and promote local business participation. Engagement with DESBT and DSDTI to develop business capacity building strategies. Continue to engage with TSBE, chambers of commerce and local business groups/associations. Consider providing the Local Content Report to the Australian Industry and Skills Committee when developed. <p>In accordance with the Australian Jobs Act 2013 (Cth), ARTC has prepared an Australian Industry Participation Plan (AIP Plan) for the Inland Rail Program which identifies how Australian entities, particularly businesses operating within the Goondiwindi, Toowoomba and nearby Local Government areas (LGAs), will be provided full, fair and reasonable opportunity to bid to supply goods and services to the Project. ARTC is also committed to ensuring that Indigenous businesses, including those operating within the SIA study area, are identified and encouraged to participate in the Project's supply chain. 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The Queensland Procurement Policy's targets include:</p> <ul style="list-style-type: none"> Increasing government procurement with Aboriginal and Torres Strait Islander businesses to three per cent of addressable spend post EIS approval and during the Construction Works stage Sourcing at least 30 per cent of procurement by value from Queensland small and medium enterprises, increasing to 30 per cent during the Construction Works stage at a designated milestone date that will be determined between ARTC and the Contractor 	Chapter 17: Social Section 17.6 Chapter 18: Economics Section 18.12 Appendix Y: Economic Impact Assessment Section 5.4 - Regional Economic Analysis Section 5.5 - Business and Industry Impacts Section 6 - Impact Management Appendix X: Social Impact Assessment Section 7.5.3 Section 8.3.1 Section 8.6.3 Table 8-1 Table 8-13 Table 9-3
187	187.0005	Private	Social Impact Assessment		The submitter has raised the concern that Toowoomba and the surrounding regions have experienced significant housing demands since the draft EIS was undertaken. Hence there is a possibility of pressure on an already tight housing market.	They believe it would be beneficial to undertake an independent study into local housing to determine the best options for the Inland Rail project. Utilising a local workforce where possible will minimise the impacts on an already tight housing market. If workers cannot be sourced locally or within a reasonable drive market, TSBE requests that Wellcamp Airport is utilised to enable qualified staff to travel directly to the region which will provide further opportunities for local employment. Also, TSBE requests that any camps be required to interface with the local community and for the EIS to set minimum targets of local business participation including food and other consumables for the camps to be sourced locally, where possible.	<p>ARTC has observed the change in housing conditions during 2020-23. This has been addressed through updates to the relevant baseline data sets in Appendix X: Social Impact Assessment, Section 5.5, revision of relevant impact assessment sections (Section 7.3, and revision of relevant management measures (Section 8.3 and 8.4 of Appendix X: Social Impact Assessment).</p> <p>The EIS has also been revised to note that the Project will avoid use of rental housing in postcodes where vacancy rates are below 2.5% (see Section 8.4.4 of Appendix X: Social Impact Assessment).</p> <p>The Project will consult further with GRC and TRC, local communities and landowners who are adjacent to the Project's proposed accommodation facilities. The Project will consider stakeholder feedback in the planning, design and development of the facilities and relevant management procedures, including the Project's Accommodation Management Plan. This process will include consultation with local businesses about potential opportunities to supply the facilities with goods or services (Appendix X: Social Impact Assessment, Section 8.4.4).</p> <p>ARTC will monitor the outcomes of its Accommodation Management Plan to identify any strains on local rental housing stock (as indicated by declining rental vacancy rates) and will also monitor short-term accommodation providers' capacity to service tourists (as indicated by consultation with local tourism associations).</p>	Appendix X: Social Impact Assessment Section 5.5 Section 7.3 Section 8.3 Section 8.4 Section 8.4.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
187	187.0006		Economics		TSBE requests for the EIS to demonstrate how Inland Rail will interface with the construction of the intermodal facilities at Wellcamp and the long-term opportunities for these operators.	nil.	<p>The Inland Rail Project in Queensland will support regional economic growth by facilitating the development of intermodal facilities that will sustain employment and business activity for the long term. The Project runs via the Toowoomba Trade Gateway, which combines an internationally capable airport with a major freight facility and over 2,000 hectares of industrial land on the western fringe of Toowoomba LGA. The Toowoomba Trade Gateway is a major industrial precinct supporting Toowoomba and regional south Queensland, involving aviation, logistics, transport, corporate and mining services. It is privately owned and managed and includes Toowoomba Wellcamp Airport, Wellcamp Business Park, InterLinkSQ, Witmack Industry Park and Charlton Logistics Park. The airport became operational in 2014 and provides domestic passenger and international freight transportation. Development of the industrial precinct is ongoing (Appendix X: Social Impact Assessment, Section 7.5.4).</p> <p>The Project's route via the airport and industrial precincts may provide the opportunity to supplement airfreight movements with access to the national rail freight network, facilitate access to efficient rail transport for businesses in the region and at the Toowoomba Trade Gateway, and stimulate business development in the Toowoomba Trade Gateway (Appendix X: Social Impact Assessment, Section 7.5.4).</p> <p>The current reference design for the revised draft EIS does not yet have a connection at these locations. This does not preclude ARTC or another 3rd party constructing such a facilities at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment, and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, intermodal terminal operators can occur a later date should there be identified a future need for such rail infrastructure at these locations.</p>	Appendix X: Social Impact Assessment Section 7.4 Section 7.6 Section 7.5.4
187	187.0007	Private	Editorial		The Toowoomba Enterprise Hub is now known as the Toowoomba Trade Gateway, therefore the EIS should update all references to reflect the name change	nil.	Noted. The name description of the Toowoomba Trade Gateway has been revised where occurrences occur such as Chapter 2: Project Rationale and Chapter 8: Land Use and Tenure.	Chapter 2: Project Rationale Chapter 8: Land Use and Tenure
188	188.0001	Community Group	Flora and Fauna		The Toowoomba Wilderness Society, a regional branch of The Wilderness Society, is concerned about the vulnerability of very special local flora and fauna, across the Darling Downs including the Western and Southern Downs to be affected by the Inland Rail Project. According to them the draft EIS doesn't adequately address the TOR including the project's potential environmental impacts and the effectiveness of measures the proponent proposes to manage those impacts.	The have requested to locate detailed information about our healthy fauna populations in this corridor via research and consultation with local carers and landowners. The have asked to consider the need for good soil and the necessity for biodiversity through healthy understorey to provide for a range of species - e.g. echidna, wallaby, ground birds, small birds, large birds, insects, quoll. They also don't want the mitigation areas to be near the dangerous tracks but in the areas where the wildlife is living seeking to make these areas more pristine and removed from human contacts (speed and light). Engagement of ecological experts who have local knowledge should be done.	<p>A detailed assessment of potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Some examples of identified impacts include Habitat loss and degradation, displacement of threatened species, barrier/edge effects, lighting, dust, erosion, and contamination.</p> <p>Additional ecology surveys were also undertaken by Cardno (2021) and AusEcology (2022), which ground-truthed the Project footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and Construction Works stage of the Project. Results of these surveys including locations and quantification of ecological values, including threatened species, is provided in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Mitigation measures have been considered to reduce the potential impacts on flora and fauna within the Project alignment and these are outlined in Chapter 11: Flora and Fauna.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, provides further context and the framework for implementation of these proposed mitigation and management measures.</p>	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 4
188	188.0002	Community Group	Flora and Fauna	Koala	The submitter has raised concerns for the local koala population. The TWS goal is to develop fodder farms for koalas in care, including fundraising and reforestation to restore understorey habitat it improve corridors across the region. Via local farmers, TWS is aware that there are remnant koala populations with very healthy DNA who are living in mature trees on the proposed rail route in the Southbrook/Pittsworth area. As a result of a long drought small population of koala west of the Great Dividing Range are extremely stressed. Since Border to Gowrie has a long history of human activity and other disturbances Koalas are already impacted negatively. The submitter highlights that any notion of relocation should be informed by the lack of success this has had in others areas, as koalas are not flexible in terms of changing diet and territorial. TWS is also concerned about the possibility of fox and wild dog attacks on marsupials in underground tunnels. Koalas also need strong mature trees for physical development, and relocating may pose a problem where proper trees and diet is not available and they are likely to starve.	The submitter has proposed the following solutions: 1. Rerouting if possible to ensure koala survival. 2. Mitigation should ensure a large number of trees for the koalas	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from AusEcology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ Construction and operating costs ▶ Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>In instances where a significant residual impact has been identified as per the EPBC Act 1999 Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised Appendix Q: Environmental Offset Delivery Strategy that outlines the properties that make up the Project offset portfolio and their suitability to acquit significant residual impacts on MNES and MSES. Appendix Q: Environmental Offset Delivery Strategy includes a summary of how the proposed offset portfolio will acquit the anticipated offset requirements for the koala to achieve no net loss.</p> <p>In addition, ARTC has commenced two key research initiatives relating the koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study koala genetics that focusses on population genetics and dietary analysis for koalas across eight of the Inland Rail Projects. The purpose of this study to:</p> <ul style="list-style-type: none"> ▶ Increase baseline data on koala population resilience and restoration requirements. ▶ Informs koala conservation controls as required in conditions of approval. ▶ Informs fauna connectivity plans. ▶ Informs koala offset management decisions. ▶ Contribute to Infrastructure Sustainability Council credits. <p>The expected completion date for these studies is June 2023.</p> <p>ARTC is engaging with stakeholders to determine opportunities for community Projects that will provide legacy benefits. Initiatives outlined in this submission can be further investigated during the Detailed Design stage.</p>	Chapter 2: Project Rationale Section 2.8 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
189	189.0001	Private	Social Impact Assessment	Directly impacted landowner	The submitter raises an intolerable impact on their finances and future income. The have been waiting for a notice of intention to resume their property 'Feneton' 258 Hall Rd, Yandilla since Dec 2020. This wait has affected their mental health and wellbeing. The banks don't lend them due to uncertainty. They can't sell the property as potential buyers are turned off due to the rail project. Due to uncertainty they can't plan their retirement. The are also recovering from drought. No timeframe has been provided to the submitter about the acquisition process. This has been extremely traumatic for the family and the future of their children who would not be able to continue with the use of Feneton as third generation farmer.	nil.	<p>Property acquisitions will be undertaken by DTMR as the Acquiring Authority. ARTC notes that acquisition of this property is now underway by the Department of Transport and Main Roads in accordance with the terms of the Acquisition of Land Act 1967.</p> <p>ARTC acknowledges the uncertainty that project development can create. Revised draft EIS Appendix X: Social Impact Assessment, Section 7.1.2 details the strategies that ARTC has implemented to support affected residents. This included creating a partnership with the local primary health network, which provides greater access to mental health support services.</p>	Appendix X: Social Impact Assessment Section 7.1.2
189	189.0002	Private	Flora and Fauna		The submitter is worried about the natural flora and fauna.	nil.	Mitigation measures have been developed to reduce potential impacts to flora and fauna which include: maximising use of existing rail corridors and co-locating with existing road infrastructure; restricting the clearing of remnant vegetation to the minimum requirements; minimising disturbance of sensitive areas; minimising impacts to watercourses, riparian vegetation and habitats; development of fauna crossings and fauna fencing; relocation of plants and habitats for threatened species where possible; and weed management protocols. See Chapter 11: Flora and Fauna for further details on mitigation measures.	Chapter 11: Flora and Fauna Section 11.6
189	189.0003	Private	Surface Water		The submitter is concerned about water quality and how the construction phase and dust will affect them especially with traffic and heavy machinery access.	nil.	<p>The revised draft EIS includes management and mitigation measures to avoid and minimise environmental impact during the Construction Works stage. These measures are documented in Chapter 24: Outline Environmental Management Plan and will be continued through into the Contractor's Construction Environmental Management Plan. This Construction Environmental Management Plan will be developed in consultation with regulatory stakeholders and submitted for review and approval by the Environmental Monitor for the Project - an independent entity engaged to oversee the Project's compliance with conditions of approval.</p> <p>Water quality mitigation measures are presented in the Surface water Section of Chapter 24: Draft Outline Environmental Management Plan. Dust control measures are presented in the Air quality Section of Chapter 24.</p>	Chapter 24: Draft Outline Environmental Management Plan
189	189.0004	Private	Flooding		The submitter is worried about flooding especially inundation and peak water levels and how that will affect their stock and damage to their crops.	nil.	Operational flood impacts on land in the Condamine River floodplain have been described in Section 14.9.1 of the revised draft EIS Chapter 14: Flood and Geomorphology. Construction impacts are discussed in Section 14.8.1 Chapter 14: Flooding and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3
190	190.0001	NGO	General project opinion - positive		The Toowoomba Chamber recognises that the proposal has the potential to provide significant and long-lasting benefits to Toowoomba, the region, Queensland, and the nation. Overall, they are strong supporters of this project	nil.	ARTC acknowledges the support of the Toowoomba Chamber of Commerce for this national infrastructure Project - to Toowoomba and the region, as well as at the wider state and national level.	N/A

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190	190.0002		Economics		The submitter expects the outcome of this process is that any potential impacts on existing business operations will be adequately mitigated to ensure the protection of people's livelihoods. Prima facie, there appears to be lack of information or commitment on how these potential opportunities will convert into local jobs, future investment, and the specific use of local businesses in the Toowoomba region.	They have requested the following conditions be included for approval: 1. A minimum 75% of goods and/or services for the project are to be provided by businesses located within the Toowoomba Regional Council boundaries. 2. Quarterly reporting is to be released identifying number of jobs created, businesses engaged, their location and value in dollar terms spent with those businesses. 3. State and Australian Government incentives be provided to facilitate business and industry development in the region, such as but not limited to the enhancement of the digital network and creating electricity provider competition.	The Project's Social Impact Assessment report (Appendix X: Social Impact Assessment) further specifies that construction contractors are required to liaise with Regional Skills Initiative Strategy officers in Goondiwindi and Toowoomba to identify potential cooperation or partnerships for the development of employment and business capacity in the region. It is identified in Appendix Y: Economic Impact Assessment (EIA) the Project is likely to offer opportunities in secondary service and supply industries (such as retail, hospitality and other support services) for businesses in close proximity to the construction footprint and non-resident workforce accommodation facilities. The expansion in construction activity has the potential to support additional temporary flow-on demand and additional spending by the construction workforce in the local community, this may lead to increased trading levels for small businesses, such as food and beverage businesses in the impact assessment area. ARTC will aim to maximise the benefit to local business and industry participation the following measures will be delivered by ARTC as outlined in the EIA: ▶ Promote the business registration process on the ARTC website. ▶ Development and implementation of an AIP Plan focusing on opportunities for involvement by local business in construction and operation of the Project that involves: ▶ Identifying businesses within 125 km of the Project with potential capacity to supply the Construction Works stage. ▶ Engagement with local business to identify opportunities to develop and promote local business participation. ▶ Engagement with DESBT and DSDTI to develop business capacity building strategies. ▶ Continue to engage with TSBE, chambers of commerce and local business groups/associations. ▶ Consider providing the Local Content Report to the Australian Industry and Skills Committee when developed. In accordance with the Australian Jobs Act 2013 (Cth), ARTC has prepared an Australian Industry Participation Plan (AIP Plan) for the Inland Rail Program which identifies how Australian entities, particularly businesses operating within the Goondiwindi, Toowoomba and nearby Local Government areas (LGAs), will be provided full, fair and reasonable opportunity to bid to supply goods and services to the Project. ARTC is also committed to ensuring that Indigenous businesses, including those operating within the SIA study area, are identified and encouraged to participate in the Project's supply chain. In recognition of stakeholders' expectations, and to ensure local business benefit from the Project, ARTC has developed subgroups to further categorise and define the geographical boundaries of what constitutes local, as discussed in Chapter 17: Social, and will report on local supplier participation from within the Goondiwindi and Toowoomba LGAs, as well as at regional, state and national level. The majority of supply opportunities for businesses will be with the construction contractors and their supply chains, not directly with ARTC. Tenderers for Project construction will be made aware of the need to engage local businesses and required to ensure they have a full, fair and reasonable opportunity to tender. ARTC will implement Inland Rail's Sustainable Procurement Policy (available at https://inlandrail.artc.com.au/inlandrail-sustainable-procurement-policy/) for the Project refer Chapter 17: Social Impact Assessment. The Sustainable Procurement Policy aims to maximise the involvement of businesses, and includes a focus on building local businesses' capacity, to increase the number of businesses in the SIA study area that can successfully compete for Project supply opportunities. ARTC is engaging with the Contractors regarding acceptable standards for subcontracting, and will also work with small businesses to provide information about how to engage with major contractors. ARTC will also consider aspirational targets identified in the Queensland Procurement Policy (Department of Energy and Public Works, 2021) in evaluating the Contractor's targets see Chapter 17: Social Impact Assessment. The Queensland Procurement Policy's targets include: ▶ Increasing government procurement with Aboriginal and Torres Strait Islander businesses to three per cent of addressable spend post EIS approval and during the Construction Works stage. ▶ Sourcing at least 30 per cent of procurement by value from Queensland small and medium enterprises, increasing to 30 per cent during the Construction Works stage at a designated milestone date that will be determined between ARTC and the Contractor.	Chapter 18: Economics Section 18.12 Chapter 17: Social Appendix X: Social Impact Assessment Chapter 18: Economics Section 18.12 Appendix Y: Economic Impact Assessment Section 5.2 Section 5.5 Section 5.7
191	191.0001	Private	Flora and Fauna		The submitter is concerned about whether the fauna fencing will take place or not, given it is contradictorily stated in the draft EIS. He writes that in Appendix M it is stated that fencing is to be extended 150 m beyond the proposed crossing location to guide fauna to the bridge structure. However, it then also notes that this opportunity is located on the Condamine River Floodplain. The rail corridor will not be fenced across this floodplain to avoid the possibility of debris accumulation in fencing during flood events. Therefore, the fauna fencing may not be practicable from a safety perspective. He thinks that this contradictory statement is confusing. He also refers to the Figure 3.1c (location of fauna fencing) to see the fauna exclusion fence in each of these crossings.	nil.	Appendix M: Draft Koala Management Plan has been updated to ensure that conflicting information is not presented. In terms of fencing design, for interfaces along the alignment, Chapter 21: Hazard and Risk, Section 21.6.2 Table 21-16, notes that 'Specific fencing requirements are to be agreed through discussion with adjoining landowners and asset owners through the design development'. There are various types of fencing that will be required. ARTC has standard drawings for the various types of fences. These eleven standards can be found on the ARTC website at extranet.artc.com.au/eng_track-civil_drawings.html . As there are various standards depending on the type of fence, it is not proposed to list these standards. Typically, not all design standards have been listed. Since the submission of the draft EIS, ARTC has developed Appendix P: Fauna Connectivity Strategy to support the revised draft EIS. This document will be standalone Appendix for the revised draft EIS and was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010 respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.	Chapter 21: Hazard and Risk Section 21.6 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix P: Fauna Connectivity Strategy Appendix L: Terrestrial and Aquatic Ecology Technical Report
191	191.0002	Private	Stakeholder engagement		The submitter outlines that any actual description or information about fauna fencing has not been discussed with landowners with regard to fencing type or location throughout the consultation process. There may be acquisition of land as a result of fence construction and hence the landowners should be consulted.	The planning and consultation process around fencing should be discussed with all affected parties to consider appropriate solutions whose inputs are valuable to any solution.	ARTC notes that fencing is one aspect of the "property impacts" key issue described in Appendix E: Consultation Report, Section 5.1. ARTC has developed a standard fencing strategy and a fact sheet on managing corridor fencing, which is available on the ARTC website at www.artc.com.au Following consultation with landowners regarding debris mobilisation during flood events, it removed the proposed fencing on the Condamine floodplain, in the vicinity of the submitter's property, from the revised reference design. As noted in the Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 5.1
192	192.0001	Community Group	Project scope		The draft EIS fails to detail matters at a relevant scale for the localised impacts to be assessed and mitigated for businesses, infrastructure, environment, agricultural operations and local communities.	Millmerran Rail Group calls on the Coordinator-General to: 1. Not accept the draft EIS as the final EIS (as per Section 34A(2)) of State Development and Public Organisation Act 1971. On the basis that the Draft EIS: a. does not meet the Terms of Reference b. Contains information gaps considered relevant to the project. i. Main project aspects to be developed that ARTC has conceded in Chapter 23 of the draft EIS. ii. The deficiencies identified by draft report by the Independent Panel of Experts for Flood Studies, should be addressed. iii. Additional information gaps identified. c. will cause impact of local, regional and state significance. 2. Require additional information and this should require public notification (as per Section 34B(2)(c)). 3. Release the revised draft EIS for public submission (as per Sections 34C(3) and 34C(4)). 4. Consider the findings and recommendations, and the comments on it by stakeholders, as part of assessment of the draft EIS of the ongoing investigation by the all-party Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021.	As described in the revised draft EIS at Chapter 1: Introduction, Section 1.5, between 23 January 2021 and 4 May 2021, the draft EIS was made available for public comment under Section 33 of the SDPWO Act and public submissions were received. Appendix A2: Terms of Reference Cross Reference Table has been updated for the revised draft EIS in Appendix A2: Terms of Reference - Cross Reference Table. On 4 January 2022 the Coordinator-General requested additional information under Section 34B(2) of the SDPWO Act. The Coordinator-General additional information requirements and the proponent's (ARTC) responses to the public submissions received comprise the basis of assessment for the revised draft EIS. The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and an additional information request by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project. ARTC worked collaboratively with the Independent International Panel of Experts for Flood Studies (the Panel) in their review & recommendations of the Project. ARTC has committed to implement the six recommendations outlined in the Panel's Final Report. Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC fully cooperated with the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.	Chapter 1: Introduction Section 1.5 Chapter 5: Project Description Section 5.3.3 Appendix A2: Terms of Reference - Cross Reference Table

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0002	Community Group	Project alignment	Baseline/background sampling	ARTCs process for route selection, route alignment, detailed design, impact assessment and mitigation strategies has failed to avoid or minimise impact.	<p>Millmerran Rail Group calls on the Coordinator-General to:</p> <ol style="list-style-type: none"> Not accept the draft EIS as the final EIS (as per Section 34A(2) of State Development and Public Organisation Act 1971. On the basis that the Draft EIS: <ol style="list-style-type: none"> does not meet the Terms of Reference contains information gaps considered relevant to the project <ol style="list-style-type: none"> main project aspects to be developed that ARTC has conceded in Chapter 23 of the draft EIS. The deficiencies identified by draft report by the Independent Panel of Experts for Flood Studies, should be addressed Additional information gaps identified. will cause impact of local, regional and state significance. Require additional information and this should require public notification (as per Section 34B(2)(c)). Release the revised draft EIS for public submission (as per Sections 34C(3) and 34C(4)). Consider the findings and recommendations, and the comments on it by stakeholders, as part of assessment of the draft EIS of the ongoing investigation by the all-party Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021. 	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment, and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d) document, ARTC notes complementary initiatives being led by the Australian Government, such as the \$44 million Inland Rail Interface Improvement Program, which may provide future opportunities for regional communities along the alignment to connect to Inland Rail.</p> <p>As described in Chapter 1: Introduction, Section 1.5, between 23 January 2021 and 4 May 2021, the draft EIS was made available for public comment under Section 33 of the SDPWO Act and public submissions were received. By publicly notifying the draft EIS under Section 33, the Coordinator-General had deemed that the ToR was satisfactorily addressed. Terms of reference compliance has been updated for the revised draft EIS in Appendix A2: Terms of Reference - Cross Reference Table. On 4 January 2022 the Coordinator-General requested additional information under Section 34B(2) of the SDPWO Act. The Coordinator-General additional information requirements and the proponent's (ARTC) responses to the public submissions received comprise the basis of assessment for the revised draft EIS.</p> <p>The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>ARTC will continue to work collaboratively with the flood panel in their review & recommendations of the Project.</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p>	<p>Chapter 1: Introduction</p> <p>Section 1.5</p> <p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Appendix A2: Terms of Reference - Cross Reference Table</p> <p>Appendix E: Consultation Report</p>
192	192.0003		Economics		Much of the information refers to the 2015 Base Case, which by its own admission requires more detailed assessments to determine impacts and costs. Since 2015, commitments have been made by the Australian Government that the EIS process would involve assessment of the detailed design to determine and address impacts.	<p>Millmerran Rail Group calls on the Coordinator-General to:1. Not accept the draft EIS as the final EIS (as per Section 34A(2)) of State Development and Public Organisation Act 1971. On the basis that the Draft EIS, does not meet the Terms of Reference, contains information gaps considered 'relevant to the project. "main project aspects to be developed" that ARTC has conceded in Chapter 23of the draft EIS. The deficiencies identified by draft report by the Independent Panel of Experts for Flood Studies, should be addressed. Additional information gaps identified. c. will cause impact of local, regional and state significance.2. Require additional information and this should require public notification (as per Section 34B(2)(c)).3. Release the revised draft EIS for public submission (as per Sections 34C(3) and 34C(4)).4. Consider the findings and recommendations, and the comments on it by stakeholders, as part of assessment of the draft EIS of the ongoing investigation by the all-party Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021.</p>	<p>The reference design for the revised draft EIS for the Project has been updated in light of public submissions and further detailed consultation with Commonwealth, State and Local Government agencies, businesses, community groups and the general public. In 2020, ARTC prepared a budget reset to reflect the revised CAPEX figures associated with the Border to Gowrie reference design. The CAPEX figures have been converted to a 2021-2022 dollar value. Refer to Appendix Y: Economic Impact Assessment, Appendix C.</p> <p>On 23 January 2021, the Coordinator-General released the draft EIS for public consultation, as it was deemed to have suitably met the final Terms of Reference that was approved by the Coordinator-General. Post notification period and receipt of EIS submissions, the Coordinator-General requested additional information to enable the Coordinator-General to make an informed decision on accepting the EIS as final. The revised draft EIS has been updated to address these additional information requirements. In relation to the information gaps identified in the submissions, ARTC has updated Chapter 24: Draft Outline Environmental Plan and Chapter 8: Land Use and Tenure. The revised draft EIS will be released for a second round of public consultation in accordance with the requirements of the <i>State Development and Public Works Organisation Act 1971</i>.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both of these made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57j931j0j4&sourceid=chrome&ie=UTF-8.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.3</p> <p>Section 5.12</p> <p>Appendix Y: Economic Impact Assessment</p> <p>Appendix C</p>
192	192.0004	Community Group	Stakeholder engagement		The Millmerran Rail Group and community are frustrated and disappointed with the lack of detailed information and opportunity to assess impacts as part of a transparent and accountable process.	<p>Millmerran Rail Group calls on the Coordinator-General to:</p> <ol style="list-style-type: none"> Not accept the draft EIS as the final EIS (as per Section 34A(2)) of State Development and Public Organisation Act 1971. On the basis that the Draft EIS: <ol style="list-style-type: none"> does not meet the Terms of Reference contains information gaps considered 'relevant to the project' <ol style="list-style-type: none"> main project aspects to be developed" that ARTC has conceded in Chapter 23 of the draft EIS. The deficiencies identified by draft report by the Independent Panel of Experts for Flood Studies, should be addressed Additional information gaps identified. will cause impact of local, regional and state significance. Require additional information and this should require public notification (as per Section 34B(2)(c)). Release the revised draft EIS for public submission (as per Sections 34C(3) and 34C(4)). Consider the findings and recommendations, and the comments on it by stakeholders, as part of assessment of the draft EIS of the ongoing investigation by the all-party Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021. 	<p>The Coordinator-General has requested ARTC prepare a revised draft EIS, which will be placed on public notification and will be available for submissions to be lodged. The stakeholder engagement process to support public notification is outlined in Appendix E: Consultation Report, Section 7.1.</p> <p>ARTC has addressed the matters raised in the report by the Independent Panel of Experts for Flood Studies, as detailed in Chapter 14: Hydrology and geomorphology.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Appendix E: Consultation Report</p> <p>Section 7.1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0005	Community Group	Project alignment		The route assessment process has lacked transparency and accountability and has resulted in a route from Border to Gowrie that fails to avoid major impacts associated with the Condamine Floodplain and land use. Impacts have been communicated since 2016 and fail to be addressed in the EIS, current route selection and design. The proposed alternative Cecil Plains forestry route had no comparison assessment. Does not include DA Hall & Co current multiple route options. Fails to demonstrate like for like Multi Criteria Assessment of all route options. Fails to include and compare updated cost scenarios at \$10.5. Lacks evidence to support and justify final route selection	nil.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route via October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined 2 km wide study area is referenced within Chapter 2 Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 (m) wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.</p>	Chapter 2: Project Rationale Section 2.8 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
192	192.0006	Community Group	Social Impact Assessment		The EIS does not identify how ARTC plans to provide tangible and direct benefits to the Border to Gowrie community.	nil.	Appendix X: Social Impact Assessment, Section 7.4.9 describes the potential legacy benefits that would eventuate in the Project region, and has been further detailed in response to submissions.	Appendix X: Social Impact Assessment Section 7.4.9
192	192.0007	Community Group	Flooding	Modelling	One of the biggest and potentially damaging gaps in critical information that has been repeatedly raised with the ARTC are the flaws in the current flood modelling that inform infrastructure design and impact and influenced the route selection decision. Evidence has been produced and submitted based on real life experience that shows a shortfall and variations to the predicted flooding levels and areas. The service commitments for time and efficiency will be undermined when the rail is damaged due to flooding. The mitigation measures to flood proof the rail only transfers the risk and impact to adjacent land use and infrastructure.	nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
192	192.0008		Economics		There is a significant lack of information and evidence to support benefit claims for the Darling Downs and 'Border to Gowrie' project. Claims are based on access to market for agricultural products to domestic markets and to port. The data provided and referenced is for the entire 'Melbourne to Brisbane' project. The evidence is sourced from the Inland Rail Business Case 2015 which does not go to port.	Information request for a cost benefit analysis of road freight (direct from farm to market and port) and current rail services for the Darling Downs region and 'Border to Gowrie' project area, and full detailed proposed services, costs and time of Inland Rail within the project area for agricultural product, to satisfy the claims for: Improved access to and from regional markets Reduced costs for the market Improved reliability and certainty of transit time Reduced distances travelled Improved safety Enable complementary market-driven investments	<p>ARTC notes the purpose of the Investment Case (Inland Rail Programme Business Case 2015) was to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail Project. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution. Once the financial (investment) decision had been made to proceed with the Project, the statutory approval process commenced. Inland Rail, as a State Significant Project in Queensland, is required to respond to the Terms of Reference (ToR) with an Environmental Impact Assessment (EIS) as required under the <i>State Development and Public Organisation Act 1991</i>.</p> <p>The purpose of the EIS process is to inform decision-makers and the public of the environmental consequences of implementing a proposed Project. The EIA identifies, predicts, and analyses impacts on the physical environment, as well as social, cultural, economic and health impacts during construction and operation of the Project. The economic analysis provided in the EIS response is tailored to consider these impacts during construction and operation with appropriate mitigation measures.</p> <p>As a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment (those quoted by the submitter). The full suite of potential benefits associated with the Inland Rail Program can only be realised once this Project and all other Inland Rail Projects are complete and operational. The EIA was prepared at a specific point in time for the revised draft EIS. Since the Inland Rail Independent Review (2022), the Kagaru to Acacia Ridge and Bromelton Project was removed from the Inland Rail Program in Queensland. The EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams; providing competitive freight transport and supporting regional and local business. The EIS also summarises the broader program benefits identified in the 2015 Investment Case.</p> <p>In regards to the proposed solution, due to the nature of the incremental assessment approach adopted for this revised draft EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.</p> <p>In addition, Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including obviously grain trains) do not need to be double-handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail.</p>	Chapter 18: Economics Section 18.6 Section 18.7 Appendix Y: Economic Impact Assessment Section 2.2 Section 5.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0009		Economics		The EIS fails to demonstrate a cost benefit analysis of a) current road freight (direct from farm and grain depots to market and port), b) current rail services for the Darling Downs region (QR Brookstead to Brisbane Port), and c) Inland Rail 'Border to Gowrie', including full detailed proposed services, costs and time of Inland Rail within the project area for freight of agricultural products, relating to their claims for: improved access to and from regional markets Reduced costs for the market Improved reliability and certainty of transit time Reduced distances travelled Improved safety Enable complementary market-driven investments	Substantiate direct benefit claims with specific reference to the project area 'Border to Gowrie'. For the B2G project area: Substantiate the direct benefit claim that the Darling Downs will have improved access via rail to key local and international markets, compared to current road transport. Substantiate the direct benefit claim that agricultural freight operating costs will be reduced by rail relative to road transport. Include the cost and time analysis associated with road freight from Inland Rail Terminal in Acacia Ridge to Brisbane Port. Substantiate a cost analysis that incorporates the Acacia Ridge to Brisbane Port options and construction costs, addressing a potential material impact on the overall cost benefit analysis. Include scenarios of cost and time analysis that account for impacts to service due to flooding of the Condamine Floodplain Crossing. Confirm and detail proposed services from Brookstead and integration with QR and Grain Corp facilities.	ARTC acknowledges that as a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment (those quoted by the submitter). The full suite of potential benefits associated with the Inland Rail Program can only be realised once this Project and all other Inland Rail Projects are complete and operational. The EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams; providing competitive freight transport and supporting regional and local business; and are summarised in the Executive Summary. The EIS also summarises the broader program benefits identified in the 2015 Investment Case in Section 5.1 of the Executive Summary. Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Qld Government costs have not been included in the Economic Technical Report. There are no intermodal hubs which form part of the revised draft EIS. All assumptions relating to demand modelling, including the connection to intermodal terminals, are considered in the Inland Rail Program Business Case (2015). The EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals) or Project options is outside the scope of this EIS. This is reflected in the recent request for further information from the Office of the Coordinator-General. It is noted the location of intermodal will have a material impact on the way benefits of Inland Rail are realised. The Australian Government has also jointly funded a business case to consider the development of an intermodal terminal to support Inland Rail in Queensland. See link: https://investment.infrastructure.gov.au/Projects/Project_Details.aspx?Project_id=111245-20QLD-MRL Regarding connections to local and international markets, the Inland Rail Project in Queensland will support regional economic growth by facilitating the development of intermodal facilities that will sustain employment and business activity for the long term. The Project runs via the Toowoomba Trade Gateway, which combines an internationally capable airport with a major freight facility and over 2,000 hectares of industrial land on the western fringe of Toowoomba LGA. The Toowoomba Trade Gateway is a major industrial precinct supporting Toowoomba and regional south Queensland, involving aviation, logistics, transport, corporate and mining services. It is privately owned and managed and includes Toowoomba Wellcamp Airport, Wellcamp Business Park, InterLinkSQ, Witmack Industry Park and Charlton Logistics Park. The airport became operational in 2014 and provides domestic passenger and international freight transportation. Development of the industrial precinct is ongoing. The Project's route via the airport and industrial precincts may provide the opportunity to supplement airfreight movements with access to the national rail freight network, facilitate access to efficient rail transport for businesses in the region and at the Toowoomba Trade Gateway, and stimulate business development in the Toowoomba Trade Gateway. The current reference design for the revised draft EIS does not yet a connection at these locations. This does not preclude ARTC or another 3rd party constructing such a facility at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, intermodal terminal operators can occur a later date should there be identified a future need for such rail infrastructure at these locations. Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including grain trains) do not need to be double handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost-effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail. It is noted that in the revised draft EIS only 2 of 19 trains using Inland Rail in year 2028 will be Queensland grain trains travelling from Yelarbon to Fisherman's Island at the Port of Brisbane and only 3 of 24 in 2040 will be such trains. The Project crosses approximately a 12.5 km Section of the Condamine River floodplain. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (trm.qld.gov.au) . In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: https://www.independentpanelofexperts.com.au/Independent-panel-of-experts-for-flood-studies-in-Queensland-final-report The current reference design for the revised draft EIS for Project, includes connecting the existing sidings at the GrainCorp silos, which will facilitate faster transport of grain to market. In addition, Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including obviously grain trains) do not need to be double handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost-effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail. The Inland Rail alignment terminates at Acacia Ridge and Bromelton in South-East Queensland. According to the Department of Infrastructure, Transport, Regional Development and Communications, "the Australian Government has committed up to \$20 million in funding for Port of Brisbane further planning with Queensland Government to provide an in-kind matching contribution. https://investment.infrastructure.gov.au/Projects/Project_Details.aspx?Project_id=104938-19QLD-MRL . ARTC will upgrade the existing Southwestern Line and Millmerran Branch Line that is operated by Queensland Rail. The use of these existing rail lines is in line with ARTC's approach to minimise additional linear infrastructure, minimise impacts to properties and create operational efficiencies.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Section 14.9.1 Chapter 18: Economics Section 18.7 Section 18.9
192	192.0010		Economics		The Inland Rail claims to provide the Darling Downs with improved access to key local and international markets for grain. Compared to current road and rail transport, it does not describe how this improved access is achieved. It references direct connectivity with Millmerran Branch Line, which is already in operation for grain freight from Brookstead via QR rail direct to Brisbane Port. The Millmerran connection has been closed since the 2010/11 floods and there is no mention of reinstating the siding connection from Millmerran (Grain Corp Millmerran) to the Inland Rail. The Inland Rail stops at Acacia Ridge, which still requires logistics handling and freight to port adding to costs and time, which is not accounted for in their claim that there is market access and efficiencies to be gained.	ARTC to provide 'make good' benefit opportunity to the agricultural industry by: Reinstating and upgrading the Millmerran Grain Corp Siding and Millmerran Branch Line to connect with Inland Rail in a timely manner to satisfy claims for delivery of direct benefits to the Millmerran community, Darling Downs agriculture, and the Border to Gowrie community. Require a commitment of ARTC and governments for the timely connection of Acacia Ridge Terminal to Brisbane Port to comply with claims for delivery of direct benefits to the 'Border to Gowrie' project and for the success of the entire project 'Melbourne to Brisbane'.	As a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment. The full suite of potential benefits associated with the Inland Rail Program; such as improved connections to international markets, can only be realised once this Project and all other Inland Rail Projects are complete and operational. The revised draft EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams; providing competitive freight transport and supporting regional and local business; and are summarised in Section 5.2 of the Executive Summary. The EIS also summarises the broader program benefits identified in the 2015 Investment Case in Section 5.1 of the Executive Summary. Regarding connections to local and international markets, the Inland Rail Project in Queensland will support regional economic growth by facilitating the development of intermodal facilities that will sustain employment and business activity for the long term. The Project runs via the Toowoomba Trade Gateway, which combines an internationally capable airport with a major freight facility and over 2,000 hectares of industrial land on the western fringe of Toowoomba LGA. The Toowoomba Trade Gateway is a major industrial precinct supporting Toowoomba and regional south Queensland, involving aviation, logistics, transport, corporate and mining services. It is privately owned and managed and includes Toowoomba Wellcamp Airport, Wellcamp Business Park, InterLinkSQ, Witmack Industry Park and Charlton Logistics Park. The airport became operational in 2014 and provides domestic passenger and international freight transportation. Development of the industrial precinct is ongoing. The Project's route via the airport and industrial precincts may provide the opportunity to supplement airfreight movements with access to the national rail freight network, facilitate access to efficient rail transport for businesses in the region and at the Toowoomba Trade Gateway, and stimulate business development in the Toowoomba Trade Gateway. The current reference design for the revised draft EIS does not yet a connection at these locations. This does not preclude ARTC or another 3rd party constructing such a facility at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, intermodal terminal operators can occur a later date should there be identified a future need for such rail infrastructure at these locations. Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including grain trains) do not need to be double handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost-effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail. It is noted that in the revised draft EIS only 2 of 19 trains using Inland Rail in year 2028 will be Queensland grain trains travelling from Yelarbon to Fisherman's Island at the Port of Brisbane and only 3 of 24 in 2040 will be such trains. The current reference design for the revised draft EIS for Project, includes connecting the existing sidings at the GrainCorp silos, which will facilitate faster transport of grain to market. In addition, Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including obviously grain trains) do not need to be double handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost-effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail. The Inland Rail alignment terminates at Acacia Ridge and Bromelton in South-East Queensland. According to the Department of Infrastructure, Transport, Regional Development and Communications, "the Australian Government has committed up to \$20 million in funding for Port of Brisbane further planning with Queensland Government to provide an in-kind matching contribution. https://investment.infrastructure.gov.au/Projects/Project_Details.aspx?Project_id=104938-19QLD-MRL . ARTC will upgrade the existing Southwestern Line and Millmerran Branch Line that is operated by Queensland Rail. The use of these existing rail lines is in line with ARTC's approach to minimise additional linear infrastructure, minimise impacts to properties and create operational efficiencies.	Chapter 18: Economics Section 18.7.4 Section 18.12
192	192.0011	Community Group	Project alignment		The process for assessment of options lacks accountability, transparency and supporting evidence. The draft EIS fails to provide sufficient detail to convey why certain option or courses of action are preferred and why other are rejected, against transparent and consistent criteria and the principles of ecological sustainable development.	nil.	ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland RAILS program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. 	Chapter 2: Project Rationale Section 2.8 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
192	192.0012		Economics		The cost blow out of the project indicates a material change in costings and potential to influence the outcomes of the route options assessment that was undertaken.	nil.	ARTC notes the purpose of the Investment Case (Inland Rail Program Business Case 2015) was to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution. Once the financial (i.e. investment) decision had been made to proceed with the Project, the statutory approval process commenced. Inland Rail, as a State Significant Project in Queensland, is required to respond to the Terms of Reference (ToR) with an Environmental Impact Assessment (EIS) as required under the <i>State Development and Public Organisation Act 1971</i> (Qld). The EIS has been prepared to address the Terms of Reference issued by the Coordinator-General, dated 16 November 2018. The objective of the EIS is to ensure all relevant environmental, social and economic impacts of the Project are identified and assessed and to demonstrate that the Project is based on sound environmental principles and practices. Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.	

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS	
192	192.0013	Community Group	Project scope	Mitigation measures	The reference designs fail to provide detail to assess local impacts, with constant referral to the preparation of detailed designs in the next phase to inform impact assessments and management plans. Fails to provide detail to assess impacts and inform management conditions. Detailed design will be developed on an individual site basis, no account for how area wide, flow on and cumulative impacts will be managed as a result. No further public and transparent consultation process or impact assessment on designs or management plans. Flaws confirmed in flood modelling by Flood Panel review that will impact design	nil.	<p>The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and an additional information request by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3 and Appendix B3: Changes to reference design since draft EIS. To support design and construction of the project, Construction Environmental Management Plans will be developed during detailed design. Ongoing consultation will continue during all future stages of the Project.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Panel) to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Panel draft and final reports are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (mtr.qld.gov.au).</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The final report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert to Kagaru Project sections.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the 4 Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> ▶ providing additional information which addressed the queries raised ▶ completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) ▶ committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) ▶ recommending that some issues raised are dealt with at Detailed Design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next Steps:</p> <ul style="list-style-type: none"> ▶ ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. ▶ ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. ▶ Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project Approvals and Corridor Acquisition, Detailed Design, Construction Works, Operations). ▶ A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. ▶ Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	<p>Chapter 5: Project Description Section 5.3.3</p> <p>Chapter 14: Flooding and Geomorphology Section 14.4</p> <p>Appendix B3: Changes to reference design since draft EIS</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4</p> <p>Appendix A</p>	
192	192.0014	Community Group	Stakeholder engagement		The experience of the Millmerran community with the engagement process has been tokenistic and contributions actively disregarded in the decision-making process. There is no process, transparency or accountability for consultation and engagement in place. The information and submissions provided through formal channels such as the PRG have not been acknowledged, responded to or acted on. Submissions have not informed decisions or assessments and there is no transparency of how this information is recorded and considered. When landowners and stakeholders have provided information, given their time or made genuine requests, these have not been acknowledged. It has been the experience of many landowners that ARTC have been argumentative and disrespectful. Furthermore, individual landowners have been approached without proper process and diligence causing distress.	nil.	<p>ARTC notes the concerns and acknowledges these. The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.3. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.3. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback as illustrated in Appendix B3: Changes to Reference Design since Draft EIS, showing changes to the reference design since the draft EIS in response to engagement with key stakeholders and identification of Project improvements.</p> <p>The Community and Stakeholder Engagement Plan describes how the Project will communicate and engage with community members and other stakeholders throughout the Project's Detailed Design and Construction Works stages, and when the Project is operational as part of the Inland Rail program. It includes a monitoring and reporting framework and describes how stakeholder inputs will be incorporated in ongoing development and implementation of Social Implementation Management Plan (SIMP) measures.</p> <p>A complaints management procedure will be developed that applies to all Project employees, contractors and site visitors. The aim of the procedure is to ensure that complaints are dealt with efficiently and effectively, and that stakeholders have confidence in the Project's complaint system, refer Section 6.2.4.2 in Chapter 6: Stakeholder Engagement.</p> <p>Complaints can be lodged by any member of the public, landowners or other stakeholders.</p> <p>The complaints management system will include:</p> <ul style="list-style-type: none"> ▶ The capacity for community members to make enquiries or complaints on a 24 hour, seven days a week basis during the Construction Works stage ▶ Promotion of the complaints procedure through direct information to people within 500 m of the Project's temporary footprint, the ARTC Inland Rail website, advertisements and newsletters ▶ A database to track complaints and actions taken in response to complaints, to support provision of information to the Community Relations Monitor about complaints and their resolution as well as regular reporting via the monthly environmental report ▶ Reasonable access by the community to the Community Relations Monitor. 	<p>Appendix E: Consultation Report, Section 2</p> <p>Chapter 6: Stakeholder Engagement, Section 6.3</p> <p>Section 6.3</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p>	
192	192.0015	Community Group	Stakeholder engagement		Dissatisfied with matters remaining unresolved, the Millmerran Rail Group are now depending on this EIS process to assess and address the issues raised and bring accountability and transparency into the development process. We insist you read through the body of correspondence attached, dating back to 2016, that supports each of these claims. It further demonstrates the genuine attempts of Millmerran Rail Group to engage and hold ARTC and the government accountable to a robust decision making process for the best outcome for both Inland Rail and the Condamine Floodplain community. The submission to the Senate Inquiry is a fair explanation of the concerns raised with both the project and the process, by Millmerran Rail Group (29 November 2019).	nil.	<p>During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD 2016). Subsequent to the submission of the EIS to the Coordinator-General, at the request of the Deputy Prime Minister, in 2020, ARTC prepared the Inland Rail Information Paper, which considered alternative Project alignments via Whetstone State Forest and Cecil Plains.</p> <p>Notwithstanding that, since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity.</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC fully cooperated with the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p>	<p>Appendix B3: Changes to reference design since draft EIS</p> <p>Appendix E: Consultation Report Section 2.1</p>	
192	192.0016	Community Group	Stakeholder engagement		The biggest risk now lies in the post EIS phase, where the management and mitigation of the major issues raised will be "addressed" by the detailed designs, management plans, and individual impact mitigation measures. There is no further transparency or opportunity for consultation, and therefore no accountability of the final project development and its impacts.	nil.	<p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will continue to consult with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered in the EIS and revised reference design. Feedback from this consultation will be used to update flood modelling for the Project, if appropriate to do so. Outcomes of this consultation and revised local catchment modelling will be incorporated into the Project.</p> <p>Consultation with impacted stakeholders will continue through detailed design of the Project to ensure that alterations to the design and its impacts are communicated back to landowners. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>	
192	192.0017	Community Group	Stakeholder engagement		At the commence of the project, commitments were made by the government to the affected communities that their issues would be heard, considered and addressed, and that detailed designs would inform resolutions to impacts as part of the EIS process. The draft EIS has proceeded in the absence of detailed designs and resolution of the specific range of issues raised during prior consultation.	Meet Ministerial commitments and community expectation for consultation on the Detailed Designs, detailed impact assessments and detailed management plans, subscribing to an accountable, transparent and respectful consultation process. Community responses during consultation, including on the appropriateness of the alignment selection, to be incorporated into the design and outcomes of the project, ARTC to provide a full description of the detailed issues raised from consultation conducted for the Condamine Floodplain, and provide a detailed description of how they have been assessed and incorporated into the design and outcomes of the project, particularly in relation to the validation of the flood modelling as per engagement goal 2.1. ARTC to demonstrate to the satisfaction of the stakeholders and the Government how the issues raised through stakeholder engagement have been addressed and incorporated into the EIS. The Coordinator Generals Office and ARTC to provide a description of the process and risk assessment for managing the consequence of issues that are raised during stakeholder consultation and not adequately addressed, and the subsequent action, liability and compensation should the raised issue occur.	nil.	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the revised reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6, Section 6.6. The Project has made changes to the reference design based on consultation with stakeholders refer Appendix B3: Changes to Reference Design since Draft EIS.</p> <p>Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS and this submission. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022.</p> <p>ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>The Condamine floodplain crossing design has been updated to incorporate community feedback. Key changes include:</p> <ul style="list-style-type: none"> ▶ extending the proposed bridge over the North Branch by approximately 250 m north ▶ moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge ▶ increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. <p>Chapter 6: Stakeholder Engagement, Table 6-11: Project design changes and mitigation measures in response to stakeholder feedback describes the design changes and mitigation measures made in response to stakeholders concerns. ARTC has commenced quarterly surveys of its stakeholder to help guide its future communication and engagement.</p>	<p>Chapter 6: Stakeholder Engagement Section 6.6</p> <p>Table 6-11</p> <p>Appendix E: Consultation Report Section 2</p> <p>Section 5.3</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p>
192	192.0018	Community Group	Stakeholder engagement		<ul style="list-style-type: none"> ▶ Consequence – not incorporating the stakeholder engagement feedback and fully considering the issues raised will result in fatally flawed designs and causal impacts may occur as predicted by landowners. The flow on lack of recognition of impacts will skew the perceived value of and entitlement to compensation. Landowners are faced with liability and risk to their land, operations and safety. ▶ Causal impacts to adjoining landowners who do not have access to compensation entitlement is not addressed. ▶ Where the issues and risks have been raised, and they are not addressed, who is liable in an event, and how can the landholder access compensation for loss? ▶ How is the issue managed in perpetuity if there is a fatal design flaw? The issues are common and have been raised repeatedly by Millmerran Rail Group on behalf of landowners in the district. 	nil.	<p>The Project's reference design has been developed to avoid and minimise impacts on the local and regional environment, and impacts on the community and landowners, as far as practicable. Engagement undertaken to date has contributed to the Project team's understanding of the potential impacts and has enabled the design to respond to, and minimise, potential impacts, where practicable. The reference design process has evolved since 2017, and has involved many iterations and refinements, incorporating a range of considerations at each stage.</p> <p>Through the revised draft EIS engagement program, ARTC continued to develop and refine the reference design. Engagement with directly and indirectly impacted stakeholders resulted in areas of refinement to the reference design, as well as mitigation measures incorporated to manage stakeholder concerns. In several areas, engagement with individual landowners or community groups has resulted in feedback and interests being captured by the Project team and these matters will be taken through into detailed design where possible, as the Project progresses.</p> <p>Appendix E: Consultation Report, Section 4.1 demonstrates some key examples of some of the design changes and mitigation measures incorporated by the Project, in response to feedback received from directly and indirectly impacted stakeholders, such as landowners, asset owners, community and environmental groups, local businesses, impacted road users, local councils, and State Government agencies. Ongoing consultation with these groups, and additional stakeholder groups such as schools, tourism operators, Traditional Owners and the broader community, will take place during detailed design development as part of the ARTC collaborative framework with the contractor during Detailed Design and Construction Works stages.</p> <p>Consultation with impacted stakeholders will continue through detailed design of the Project.</p>	<p>Appendix E: Consultation Report Section 4.1</p>	

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0019	Community Group	Stakeholder engagement		Attachments – Copies of correspondence from Millmerran Rail Group to ARTC and governments raising concerns about Inland Rail Condamine Floodplain Crossing designs, flood models and impacts, decision process accountability and transparency. Supporting evidence of landowners sharing their experience and issues	nil.	<p>ARTC notes the copies of correspondence from Millmerran Rail Group to ARTC and governments, raising concerns.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the revised reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6. The Project has made changes to the reference design based on consultation with stakeholders refer Appendix B3: Changes to Reference Design since Draft EIS.</p> <p>Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS and this submission. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022.</p> <p>ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the revised reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>The Condamine floodplain crossing design has been updated to incorporate community feedback. Key changes include:</p> <ul style="list-style-type: none"> extending the proposed bridge over the North Branch by approximately 250 m north moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. 	<p>Chapter 6: Stakeholder Engagement Section 6.6</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report Section 5.3</p>
192	192.0020		Economics		The guiding principles relating to ecologically sustainable development have not been followed and failure to adhere to project commitments will result in extraordinary impacts to businesses in the Condamine Floodplain compared to any other business along the entirety of the Inland Rail project or compared to other B2G alternative route options. ARTC cannot justify their decisions to impact the Condamine Floodplain and claim they have met their commitment to "Base decision on balanced consideration of technical, economic, environmental and social issues". The Multi Criteria Analysis has not considered the long and short term economic, environmental, social and equity considerations as they relate to the regionally significant impacts within the Condamine Floodplain. Cost savings in freight from Melbourne to Brisbane does not justify the extraordinary economic impacts imposed on local businesses and community. Imbalanced consideration of technical, economic, environmental and social issues and associated decisions as they relate to the Condamine Floodplain.	Based on the evidence provided in this submission, reject claims that ARTC have applied the guiding principles of ecologically sustainable development and decisions have not balanced economic, environmental, social and equity considerations in the long and short term.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG), in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie:</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG), that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment as the preferred concept alignment for the Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified.</p> <p>The base case via Wellcamp Charlton alignment formed the centreline of a two-kilometre-wide study area to be progressed through ARTC's phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale of the draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>As described in Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts – 12.5% (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts - 12.5% (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement – 12.5% Technical viability – 17% Safety – 16.5% Constructability – 12.5% Operations – 16.5%. <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment. Refer to Appendix B3: Changes to Reference Design since Draft EIS.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Chapter 18: Economics Section 18.4 Section 18.9</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report Section 5.1</p>
192	192.0021	Community Group	Land Resources		The route option traverses the greatest number of agricultural properties, and greatest area of permanent sterilisation of Class A and Class B good quality agricultural land. This impact is higher than other route options. \$2.85 m pa loss in gross agricultural product, is not properly and grossly under accounted due to impact to intensive poultry operations 1,451 ha of IAA permanently sterilised, 70% of the corridor The Inland Rail route Section through the Ingledwood Forestry was selected to minimise impact to agriculture. However, the new option presented for the route to bypass the Condamine Floodplain through the Cecil Plains forestry however was not given the same consideration. 25 trains/24 hrs at road crossings will impact operations. Landowners not directly impacted by footprint have no access to compensation	nil.	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>As described in Section 18.9, Chapter 18: Economics of the EIS, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. According to Chapter 8: Land Use and Tenure, Section 8.5.1, at a local government level, within the Goondiwindi Local Government Area, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.19 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within the Toowoomba, the permanent disturbance footprint traverses approximately:</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land <p>Overall, the permanent disturbance footprint will traverse 0.22 percent of the impact assessment area's productive agricultural land.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The revised draft EIS Chapter 18: Economics of the revised draft EIS, Table 18-11, summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts. Further details are provided in Chapter 7: Sustainability Section 7.5 of the revised draft EIS.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>As described in Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts - 12.5% (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts - 12.5% (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement - 12.5% technical viability - 17% safety - 16.5% constructability - 12.5% operations - 16.5%. <p>ARTC has committed to a comprehensive range of environmental and social impact management strategies which will reduce the potential for impacts on amenity, use or environmental qualities of properties near the rail corridor. Rights and entitlements of landowners and interest holders are determined in accordance with the Acquisition of Land Act 1967. This legislation sets out the process for acquisition, landowner rights and the assessment of compensation.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Chapter 7: Sustainability Section 7.5</p> <p>Chapter 8: Land Use and Tenure Section 8.5.1</p> <p>Chapter 18: Economics Section 18.9</p> <p>Table 18.11</p> <p>Appendix E: Consultation Report Section 5.1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0022	Community Group	Land Use and Tenure	Directly impacted landowner	The issues associated with the route alignment through 368 freehold properties including a large portion of agricultural cropping and grazing operations are significant. At the highest level, the issues are listed, however the significance and cost of their impact is not reflected. The designs do not demonstrate how impacts to agricultural operations have been avoided. It does not acknowledge the impact to value add and supply chain services and costs. The alignment through intensive animal operations is simply unacceptable where planning could avoid the impact to these critical businesses supporting our community, employment, local economy and animal welfare.	nil.	<p>ARTC are committed to minimising loss of agricultural land and livestock operations as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that there will be a loss of agricultural land and land that is used for livestock operations that cannot be avoided.</p> <p>The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses;</p> <ul style="list-style-type: none"> ▶ 0.02 per cent of Class A land, ▶ 0.02 per cent of Class B land, and ▶ 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> ▶ 0.17 per cent of Class A land, ▶ 0.22 per cent of Class B land, and, ▶ 0.19 per cent of IAA land. <p>Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners (Chapter 8: Land Use and Tenure, Section 8.6.2). The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>The Project will impact intensive livestock operations as outlined in Chapter 8: Land Use and Tenure, Section 8.5.1, Table 8-33. The potential impacts include partial acquisition of land, land fragmentation, accessibility and temporary use of land for the Construction Works stage of the Project.</p> <p>Where land containing intensive animal husbandry activities is to be permanently acquired for the Project, this will be undertaken in accordance with the requirements of the AL Act, as outlined in Chapter 8: Land Use and Tenure, Section 8.6.2. Where the Project footprint interfaces with public and private roads that provide access to intensive animal husbandry, accessibility impacts will be managed as per Chapter 8: Land Use and Tenure, Section 8.6.2. The detailed design for the Project will be developed to ensure that legal access for private properties is maintained. ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect property access.</p> <p>Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report. Discussion on the selection and development of the revised reference design in minimising impacts to these operations is included in Section 2.10 of Chapter 2: Project Rationale.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.5.1 and Section 8.7, in addition to the potential adverse impacts identified, the Project has the potential to result in beneficial impacts. Beneficial impacts of the Inland Rail Program, and this Project, include:</p> <ul style="list-style-type: none"> ▶ Improved access to and from regional markets ▶ Reduced inter-capital freight costs ▶ Improved reliability and certainty of transit time ▶ Increased capacity of the freight transport network ▶ Reduces freight transportation distances ▶ Improved safety ▶ Improved sustainability. 	<p>Chapter 2: Project Rationale Section 2.10 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Section 8.7 Table 8-33 Table 8-46 Appendix E: Consultation Report</p>
192	192.0023	Community Group	Land Resources		Route selection and alignment fail to avoid or minimise impacts to Good Quality Agricultural Land. Impacts to the numerous intensive animal operations could have been avoided with appropriate route alignment. The direct and cumulative impact of floods to GQAL caused by the Inland Rail alignment and design is not avoided or mitigated. The cumulative impacts beyond the footprint of the alignment are not recognised or mitigated. The permanent footprint traverses 440 properties and 34 easements. The temporary footprint traverses 542 properties and 43 easements. Other route alignments offered considerably less number of properties impacted, and presumably associated cost of compensation and mitigation measures.	Disclose all route alignments, including current alignments under consideration to be included in the EIS impacts, risk assessments and mitigation measures associated with land use and impact of the inland rail corridor and infrastructure to be conducted at a local catchment scale to appropriately account for localised impacts and cumulative impact of designs, flood models and mitigation measures. Review and conduct a fair and equitable route selection process that considers and seeks to avoid impact to Good Quality Agricultural Land. Access to compensation and mitigation measures is granted to property owners who are directly affected by the 'Developed Case' of flood depths, inundation length, time of submergence and peak water levels and impacts on private land outside the rail disturbance footprint for 1% AEP should be included as directly affected (as determined by validated flood models)	<p>The Project has been aligned to be co-located with existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However, due to a number of reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land. ARTC will continue to engage with affected landowners to minimise impacts on existing agricultural practices within Chapter 9: Land Resources.</p> <p>As described in Section 2.8 within Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>ARTC has prepared a comprehensive review detailing the alignment changes to the reference design for the revised draft EIS. Refer to Appendix B3: Changes to Reference Design since Draft EIS.</p>	<p>Chapter 2: Project Rationale Section 2.8 Chapter 9: Land Resources Appendix B3: Changes to Reference Design since Draft EIS</p>
192	192.0024	Community Group	Flooding	Directly impacted landowner	The land use impacts should be assessed at a local scale, including impacts from change in land use associated with the inland rail infrastructure and influence on localised flooding to surrounding land use and potential cumulative impacts associated with site based mitigation measures.	Access to compensation and mitigation measures is granted to property owners who are directly affected by the 'Developed Case' of flood depths, inundation length, time of submergence and peak water levels and impacts on private land outside the rail disturbance footprint for 1% AEP should be included as directly affected (as determined by validated flood models)	<p>Construction and operations flood impacts on land in the Condamine River floodplain have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.5.3.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2.4 Section 2 Section 7.5.3 Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
192	192.0025	Community Group	Flooding		Local Government Planning Schemes. Whilst the Toowoomba Regional Planning Scheme has been made exempt from assessment, the intent of the Flood Hazard Overlay Code (Part 8 Overlays) should be considered and applied to avoid impacts to direct and indirect land, use and property. The Impact Assessment and Management Plans should ensure all matters are addressed as intended by this Code. The EIS states that acceptable impacts will be determined on a site basis in the detailed design stage, and by accepting impacts implies breach of the intent of the Flood Hazard Overlay Code outcomes which would be unacceptable for any other development. There is no transparency or opportunity for consultation of these impacts. The impacts need to be known so that cumulative impact to other future developments through the proper assessment codes can be accounted for.	nil.	<p>Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.4 Section 14.11.14.10.1 Table 14-117 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0026	Community Group	Land Use and Tenure		Obtaining tenure for the Project.368 Freehold land properties noted. ARTCs preference is to negotiate the purchase of the land required for the Project based on independent market valuation. Landowners do not understand the process for purchase and compensation for a severance portion of their property and how the value to the remaining property is impacted.	nil.	<p>As identified within the Social Impact Management Plan (Appendix X: Social Impact Assessment, Section 8.2.2, Table 8.7), an engagement mechanism for the remainder of the EIS stage is to: Provide communications collateral (website updates and fact sheet) and opportunities for engagement (community information sessions, Council briefings and CCC meetings) to encourage access to the draft EIS and community participation in the public submission process. Consultation with directly affected landowners and the community will continue through the Detailed Design stage.</p> <p>The approach to acquisition of property is further detailed in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.6.2, for clarity:</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>Chapter 8: Land Use and Tenure, Section 8.6.2 states that where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld) (refer to the EIS). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance.</p> <p>Costs attributable to Compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation. Costs related to the purchase of replacement comparable land. Storage and removal costs. Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. 	Chapter 8: Land Use and Tenure Section 8.6.2 Appendix X: Social Impact Assessment Section 8.2.2 Table 8.7
192	192.0027	Community Group	Social Impact Assessment		Assessment of compensation is based on the market value of the property at the date of gazettal of the acquisition. There is no provision to compensate property owners that are not directly affected by the Project." It is not clear, the market value of the land is based on the entire property, how is the value of a portion of the property fairly valued for a severance portion and its impact on future property value of the remaining property?	nil.	<p>Property acquisitions will be undertaken by DTMR as the Acquiring Authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967.</p> <p>Where only part of a land parcel is acquired, compensation for damage caused by the severance of land the resumed land and the impact upon the remaining land may also apply. The process for claiming compensation is set out in the ALA. If the parties do not agree on compensation, a dispute about compensation can be referred to the Land Court.</p> <p>Details regarding land acquisition and consultation processes for the Project are outlined in Chapter 8: Land Use and Tenure and Appendix E: Consultation Report.</p>	Chapter 8: Land Use and Tenure Appendix E: Consultation Report
192	192.0028	Community Group	Land Resources		The Millmerran Rail Group and community rejects the claim for Inland Rail to sterilise 1,451.31 ha of Eastern Darling Downs Important Agricultural Area. The Darling Downs soils are known to be some of the most fertile and productive soils in the country, and the world. Other route options would avoid the extent of productive land sterilisation which is critical to future food production and security and the local economy. The EIS documents do not demonstrate that impacts to Class A or Class B land have been avoided. Other assessment criteria have taken priority over this outcome and has led to a large number of properties and hectares of Class A in particular to be impacted, segregated and productive land sterilised. This outcome for the sake of a few minutes in transit time and unsubstantiated cost claims is entirely unacceptable to our community and the broader State community. Class A land only occurs on 1.5% of Queensland's land area, it is a scarce, finite resource that should be protected.	nil.	<p>The Project has been aligned to be co-located within existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However, due to a number of reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land.</p> <p>As described in Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. Class A or Class B Land has been addressed during the assessment of alignment options across all alignment sections as outlined in Section 2.10.</p> <p>ARTC will continue to engage with affected landowners to minimise impacts on existing agricultural practices.</p>	Chapter 2: Project Rationale Section 2.10
192	192.0029	Community Group	Land Use and Tenure		Permanent change in tenure and loss of property. State forest revocation and local industry. Route review. The assessment was not conducted as a like for like using the multi criteria assessment to demonstrate suitability against other options. It is unacceptable that the Inland Rail route alignment design and selection process decided that it was appropriate to directly impact and traverse properties on or in close proximity of nine intensive animal operations. The impact to these operations is not listed, including, but not limited to production impacts from vibration, noise and light, biosecurity, fragmentation and disruption, supply chain interruption, animal welfare issues from flooding, impact to development opportunities.	nil.	<p>Chapter 8: Land Use and Tenure, Table 8-46 (Section 8.5.4), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>The Project footprint traverses, or is in proximity to, several current intensive animal husbandry operations as detailed in Chapter 8: Land Use and Tenure Section 8.4.1. Details of potential impacts to these feedlots, piggeries and poultry farm are provided in Section 8.5.1. Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report.</p> <p>Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property The potential for changes in access to natural resources, such as groundwater and overland flow. <p>Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis using the market value of the land as at the date of resumption.</p> <p>As described in Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	Chapter 2: Project Rationale Section 2.8 Chapter 8: Land Use and Tenure Section 8.4.1 Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46 Appendix E: Consultation Report
192	192.0030	Community Group	Project alignment	Directly impacted landowner	Agricultural operations will be affected by extended travel time along alternative access roads. As the final designs are not complete, an estimation of these diversions is not clear. There may be significant interruptions to agriculture activities particularly during peak times of 24 hour operations, such as crop harvest, where there are constant truck and machinery movements.	nil.	<p>Severance and fragmentation of rural properties are considered in Chapter 8: Land Use and Tenure, and the results are summarised in Section 8.4.1 and Section 8.5.1. It is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads.</p> <p>ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progress. In accordance with mitigation measures in Section 8.6, the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners would be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Where the proposal affects internal property access arrangements, input would be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC would consult with relevant property owners/occupants regarding alternative access arrangements, where feasible alternatives are available and identify feasible and reasonable measures to minimise impacts on existing operational arrangements/properties.</p> <p>Chapter 18: Economics, Table 18-14, summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts. Further details are provided in Chapter 8: Land Use and Tenure.</p>	Chapter 8: Land Use and Tenure Section 8.4.1 Section 8.5.1 Section 8.6 Chapter 18: Economics Table 18-14
192	192.0031	Community Group	Traffic and Transport	Level crossing	Diversions will cause additional time delays and impact normal efficiency and costs. In addition, there are concerns for safety, particularly where there are no level crossings provided for 23 crossing, and is especially risky during night operations. Operations will need to account for up to 25 trains per 24 hours with delays of 3.3 minutes per pass. During harvest, up to three trucks per hour, 24 hours/day will exit a property, with travel time not only extended due to re-routing, but increasing the probability of time delays waiting for trains. Through the Condamine Floodplain a large portion of affected properties are under cropping, the impact to operations is significant and frustrating to land owners.	nil.	<p>ARTC notes the general issues regarding level crossing wait times, level crossings and road detours.</p> <p>In the majority of circumstances, road detours are from a road closure to a grade separation and therefore does not induce a level crossing wait time.</p> <p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulators (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021 <p>In response to the above, ARTC have updated the revised draft EIS with details regarding Public level crossing treatment methodology in Appendix BT of Appendix AA: Traffic Impact Assessment. This is intended to provide Agencies and the Community with further transparency on the design process undertaken. Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Border to Gowrie section.</p> <p>ARTC has updated the revised draft EIS with details regarding Public level crossing treatment methodology in Appendix BT of Appendix AA: Traffic Impact Assessment. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Appendix BT
192	192.0032	Community Group	Traffic and Transport	Directly impacted landowner	153 private unformed roads and 62 private formed roads will be impacted, but the final number is not determined as the detailed designs are not available. Landowners who may be impacted should have the right to know and respond in the EIS process to adequately communicate their impacts. The lack of transparency in the detailed design phase may cause unidentified and unaddressed interruptions and cumulative impacts to localised areas.	nil.	<p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>Further, Appendix AA: Traffic Impact Assessment Section 5.12.3 details ARTC commitments to a Construction Environmental Management Plan (CEMP) and Traffic Management Plan. A CEMP will be prepared prior to construction commencing by the construction contractor. The CEMP will include a TMP, attached as an Appendix to the CEMP. The TMP will reflect the finalised TIA, undertaken once a construction contractor has been appointed and construction routes are finalised. It will be developed in consultation with DTMR, the relevant LGA, Department of Education, affected stakeholders and an accredited road safety auditor. The plan will also take into account communications received and will be aligned with the Construction Community and Stakeholder Management Plan. The TMP will identify the impacts that construction traffic is likely to have on the transport infrastructure and detail ameliorative measures required to mitigate all identified impacts of the Project. This may include potential temporary or permanent intersection works. The TMP will detail measures to:</p> <ul style="list-style-type: none"> Safely manage traffic when undertaking works in the road reserve Minimise traffic delays resulting from the development/construction Manage construction vehicles entering and exiting the site Maintain satisfactory property access Minimise disruption to adjacent properties Minimise disturbance to the environment Meet the requirements of legislation and codes of practice regarding traffic management Cater for special events 	Appendix AA: Traffic Impact Assessment Section 5.12.3.

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0033	Community Group	Flooding	Mitigation measures	The design and layout of occupational crossing solutions should also account for the impact of increased flooding risk associated with the Inland Rail infrastructure, as changes in water flows, levels and drainage will increase erosion risk to roads. The flood modelling is flawed and there is little confidence in the current designs to avoid and mitigate impacts. Again, the cumulative or flow on impact of changed infrastructure in the floodplain should be made public and available for consultation to account for potential impacts to neighbours and for floodplain management.	nil.	Operational flood impacts on land in the Condamine River floodplain have been described in Chapter 14: Flood and Geomorphology Section 14.8.1. Construction impacts are discussed in Chapter 14: Flooding and Geomorphology Section 14.9 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.5.3. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
192	192.0034	Community Group	Flooding - Condamine River	Erosion	The Condamine Floodplain crossing of the Inland Rail between Millmerran and Brookstead is characterised by cracking clay soils. The erosion potential of cracking clay soils in the region, and the hydrological modelling and design, will result in a seriously increased risk of erosion. The severity of the erosion risk and impact has not been represented in the EIS, and the engineering mitigation measures are both flawed and will contribute to the exacerbation of risk.	Locally experienced soil experts should inform the draft EIS reference design on the appropriateness of the Inland Rail alignment and design measures relevant to the soils of the Condamine Floodplain. The Coordinator General's Office should consult with the QDNRM&E soil scientists relating to the appropriateness of the Inland Rail design measures as presented and seek more detailed assessment to address impacts to a level of high confidence to protect soil assets. Conduct soil sampling and site assessments along the Condamine Floodplain for more informed and appropriate design to be included in the draft EIS.	A detailed soil assessment was undertaken in accordance with the Coordinator-General additional requirements at a scale of 1:10,000 mapping scale and reviewed by a Certified Professional Soil Scientist. This assessment has been used to inform the design and management measures to mitigate the impacts to soils from construction. This information was also used in the erosion hazard assessment and geomorphological assessment. Scour and erosion protection downstream of culverts has developed since the reference design stage. During the initial reference design stage, the scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the recommended soil velocity thresholds. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design (refer to Section 5.1 of Appendix H: Geomorphology Assessment). Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk. Further analysis of erosion risk is detailed in Appendix H: Geomorphology Assessment.	Appendix H: Geomorphology Assessment Section 5.1
192	192.0035	Community Group	Flooding - Condamine River	Mitigation measures	These culverts will create flood shadowing in small and mid-sized events. The culverts will concentrate the naturally widely spread flow into narrow flow lines that then persist for considerable distance downstream of the structure. Areas previously covered by flow are now 'shadowed' by the structure. In large flows, overall water depths are likely to be great and the impact of shadowing from structures is less likely to occur. However, in mid-sized events the flood shadowing resulting from flow concentration by culverts can be expected to be quite pronounced. The impacts include uneven wetting of land, causing significant spatial impact to pasture and crop growth and loss of overland flow into dams, leading to overall economic losses. Another more insidious impact is the gradual removal of soil along the concentrated lines of flow, leading to irreversible erosion over time.	nil.	Significant bridge openings and cross drainage culverts have been allowed for in the Reference Design to retain the existing flow of flood water. Flood flow distribution has been assessed and is discussed in Chapter 14: Flooding and Geomorphology, Section 14.8.1. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2
192	192.0036	Community Group	Land Resources	Erosion	Further to this, the vibration from the Inland Rail will cause 'liquefaction', where cracking clay soils to disperse when wet as they have low cohesion and resistance to detachment. Essentially turning the soil structures to 'mud slurry' when wet, putting the rail infrastructure itself at high risk as the foundations move. Engineering fixes and more cement will not address this problem. Extended flood inundation caused by the rail embankment will exacerbate the problem. Dr. Rob Loch demonstrates soil liquefaction in this video, where he is replicating the vibrating effect of a train passing over a bridge structure (with pylons into the black soil) and how it eventually turns the soil into mush. This evidence speaks for itself! facebook.com/MillmerranRailGroup/videos/443586656264599	nil.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 3.2, Section 5.0 and Table 5.3. This level of investigation is sufficient to allow the determination of the suitability of the soils and identify areas of cracking clay soils for earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. This enabled the management of the risks of the Project's topsoils and subsoils as per the Interim TMR Soil Management Manual (SMM), SMM Appendix 2 soil forms and TMR Soil Group classifications map and CSIRO Clay Mineralogy Maps. The methodology for the detailed soil investigation was developed in consultation with DoR and in accordance with the <i>Guidelines for surveying soil and land resources</i> (McKenzie et al., 2009), the <i>Australian soil and land survey field handbook</i> (National Committee on Soil and Terrain, 2009) and the <i>Guidelines for Soil Survey along Linear Features</i> (Soil Science Australia, 2015). ARTC has updated Appendix J: Soil Assessment Report to include a detailed soil assessment completed at an approximate 1:10,000 scale in consultation with DoR. The soil investigation report provides detailed soil profile descriptions and laboratory test results. Findings from the detailed soil investigation have been incorporated into Chapter 9: Land Resources, Section 9.4.2. Appendix AB: Earthworks Strategy and Draft Soil Management Plan also presents mitigation measures for soil units present within the Project footprint (refer to Sections 3.2 and 3.3).	Chapter 9: Land Resources Section 9.4.2 Appendix J: Soil Assessment Report Section 3.2 Section 5.0 Table 5.3 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3
192	192.0037	Community Group	Flooding - Condamine River		This raised linear infrastructure across the Condamine Floodplain will change the flow and drainage patterns of flood waters. Normally free flowing flood waters will be dammed, peak flood levels will rise, and flows will be diverted and concentrated through culverts. The flow volume and velocity of water will increase erosion risk. Debris from farming land will block culverts, further backing up water and creating safety hazards.	nil.	Significant bridge openings and cross drainage culverts have been allowed for in the Reference Design to retain the existing flow of flood water. Flood flow distribution has been assessed and is discussed in Chapter 14: Flooding and Geomorphology Section 14.8.1. Construction and operations flood impacts on land in the Condamine River floodplain have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.5.3. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3
192	192.0038	Community Group	Flooding	Flood immunity	The rail infrastructure is predicted to cause impacts within the floodplain up to 19 kilometres from the rail. Fences have largely been removed from the landscape to manage flooding impacts. The construction of railway fencing will create further hazards such as trapping debris that causes damming, erosion and property destruction. Should the rail design fail in flood events, the degree and extent of impact could be catastrophic.	nil.	Based on feedback from adjacent landowners indicates that fencing on the Condamine River floodplain fencing of the rail corridor has not been included in the revised reference design across floodplain areas, instead, guideposts or other alternative means of rail corridor boundary protection will be installed in order to demarcate the rail corridor and deter access to the rail corridor. The track elevation through these areas will also act as a deterrent to trespass or livestock access to the railway, where this may otherwise occur.	N/A
192	192.0039	Community Group	Flooding		The Toowoomba Regional Planning Scheme Flood Hazard Overlay Code specifically aims to ensure development in identified flood hazard areas protects the safety of people and property and does not adversely affect floodplain functions. This is achieved through the overall outcome for development use, siting, design and layout avoids or mitigates the flood risk to people, property and infrastructure. Without accountability to this Code, the Inland Rail development will change flood characteristics in ways that will result in: a. changes to flow paths; b. acceleration or retardation of flows; c. increase in the depth or duration of flood or overland flow waters; and d. worsen flood flows and drainage on adjacent properties.	nil.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17
192	192.0040	Community Group	Flooding		The failure of ARTC to validate flood models with ground truthing and incorporate feedback from landowners raised serious concerns. The consequence of informing the alignment and design of the Inland Rail based on flawed flood models is immeasurable and unplanned direct and cumulative impacts to all land use within the floodplain.	Local and site based validation of flooding levels and behaviour, and rail detail design impacts, need to be additionally assessed and costed. Stakeholders should have the right to consult on the project based on draft detailed designs and costings, to appropriately respond to quantifiable and more accurately assessed local and cumulative impacts.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17
192	192.0041	Community Group	Flooding		In April 2019, a meeting was held between Dr Markar and FFJV and ARTC to review the models where ongoing issues were identified with the models, methodology and data references. These are documented in the meeting notes from 2 April 2017 (attached 190402_Meeting Record Future Freight JV). Dr Markar provided a briefing note to DA Hall & Co on the matters of concern raised (Attachment 190408_Brief_DA Hall_WRM).	nil.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the Border to Gowrie revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0042	Community Group	Flooding		<p>Fails to demonstrate that measures have been taken to</p> <p>a. Avoid; and</p> <p>b. Minimise/mitigate impacts.</p> <p>There is no evidence of mitigation measures to avoid or minimise flooding impacts, rather the flood proofing of the Inland Rail infrastructure transfers the impacts away from the rail and on to the adjoining land use. The hydrological models fail to demonstrate at an appropriate scale, detail and accuracy, the inputs, movements, exchanges and outputs of all significant quantities of surface water affected by the project, the reference design fundamentally causes impact and fails to minimise impact, with all flood impact objectives unreasonably exceeded. There are no appropriate mitigation measure for impacted landowners outside of the project footprint area.</p>	nil.	<p>Operational flood impacts on land have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Further mitigation measures proposed are provided in Chapter 14: Flood and Geomorphology, Section 14.9 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures (Section 22 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Section 14.9</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 5-17</p> <p>Section 22</p>
192	192.0043	Community Group	Surface Water	Overland flow/diversion	<p>Overland flow, separate to flooding, has not been described and impacts assessed. There is no assessment conducted on impact to dam catchments, uneven crop infiltration and associated economic loss and stream flows.</p>	nil.	<p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed design subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures (Section 22 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 22</p> <p>Appendix T2: Flooding and Hydrology Technical Report - Volume 2</p>
192	192.0044	Community Group	Flooding	Flood immunity	<p>There was no consultation or agreement by the community of these flood impacts, they have been imposed. Acceptable flood impact objectives are stated up to 400 mm to adjacent landowners. They have been set as a consequence of unavoidable impacts due to the route alignment decision to traverse the Condamine Floodplain. The extent of flood impacts could be avoided by an alternative route alignment. The assessment process that led to and enables acceptance of 400 mm of increased flooding levels to a large number of landowners is unacceptable to this community.</p>	<p>The exceedance of flood objectives is unacceptable. The change in peak water level tolerance should be 0 mm, or 10 mm for all properties, structures, infrastructure, agricultural land and other areas. The objective for change in duration of inundation simply states to identify changes to duration of inundation and to justify the acceptability of changes. There is no action to avoid or mitigation a change. The objective for change in duration of inundation should be no change in Time of Submergence. The objective for flood flow distribution aims to minimise changes in natural flow patterns and flood flow distribution. Again, the objective seeks to identify any changes and justify acceptability of changes. The flood objective for flood flow distribution should be no change in natural flow patterns and flood flow distribution.</p>	<p>Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Chapter 14: Flooding and Geomorphology, Section 14.4.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.4</p> <p>Section 14.10.1</p> <p>Table 14-117</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 5-17</p>
192	192.0045	Community Group	Flooding		<p>The Flood Impact Objectives should meet the overall outcome of the Toowoomba Regional Planning Scheme Flood Hazard Overlay Code for development use, siting, design and layout avoids or mitigates the flood risk to people, property and infrastructure. • The Condamine Floodplain crossing is categorised as Level FR4 Extreme and FR3 High in large sections, and under any other development proposal the Code seeks to limit development in areas of intolerable risk (FR3 and FR4) so as to avoid the risk presented by the flood hazard. The Code is in place to protect property and the safety of people, and exemption and contempt for the outcomes of this code presents unacceptable risk and flood hazard for the community. The rail development will have a direct and cumulative impact within the floodplain by changing flood levels and characteristics and undermining previous and future developments that are built within the Code. The flaws and lack of confidence in the flood models presents further difficulty and risk for Toowoomba Regional Council to assess future developments to meet the Code and adequately manage risk and hazards under the unknown local changes to flood conditions.</p> <p>tr.qld.gov.au/component/edocman/part-08-overlays-v25-pdfdocument/download</p>	nil.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.11</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 5-17</p>
192	192.0046	Community Group	Stakeholder engagement	Flood immunity	<p>The Millmerran Rail Group would like access to a copy of ARTC's Flood Study Engagement Framework 2020 to cross reference the actual engagement experience with what was intended. This document does not seem to be available in the draft EIS material.</p>	nil.	<p>The Flood Study Engagement Framework has been included in the revised draft EIS for stakeholders to reference. It can be found in Chapter 6: Stakeholder Engagement, Section 6.6 and further details on engagement with key stakeholder groups for floodplains, including the Millmerran Rail Group can be found in Appendix E: Consultation Report, Section 5.3.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.3</p>
192	192.0047	Community Group	Surface Water		<p>The impacts to water availability and users cannot be assessed due to the lack of detailed design of the Inland Rail and flawed flood modelling determining impact type and extent.</p>	nil.	<p>Chapter 13: Surface Water, Section 13.26 states that the revised reference design will minimise the changes to flow and potential impact to downstream surface water users. A flooding and hydrology study has been undertaken detailing potential impacts to flow. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, changes to base-flow and low-flow conditions are not expected (refer Appendix T1 and T2: Hydrology and Flooding Technical Report Volume 1 and 2) and will not significantly impede current surface water resource use.</p> <p>Operational flood impacts on flow distribution have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and the 'Flood Impact Objective outcome' Section of each catchment Section of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Mapping to support the flow distribution assessment is provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 (Sub-Appendix Q).</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Chapter 13: Surface Water</p> <p>Section 13.26</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 5-17</p> <p>Appendix T2: Flooding and Hydrology Technical Report - Volume 2</p> <p>Appendix Q</p>
192	192.0048	Community Group	Flooding		<p>The entire length of the Inland Rail route alignment and across the Condamine Floodplain intercepts and interferes with overland flow. The floodproofing of the Inland Rail is essentially a weir across the floodplain. The diversion of flow to culverts will cause shadowing where particularly medium size flood events will see areas miss out on overland flow. There is no assessment conducted on impact to dam catchments, uneven crop infiltration and associated economic loss.</p>	nil.	<p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures (Section 22 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 22</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
192	192.0049	Community Group	Groundwater	Groundwater drawdown	<p>It is unacceptable that the project will draw against existing licences to supply 2,551 ml for earthworks and concrete during construction. There is an unaccounted loss of access to groundwater due to the project interference with groundwater aquifers, overland recharge and aquifer permeability, change in groundwater flow and seepage from construction. This displacement of valuable water for agriculture, existing industries and communities impacts resilience and future water security.</p>	nil.	<p>As part of ARTC's construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. Currently the hierarchy of water supply source preferences prioritises non-potable sources for construction water (i.e. dust suppression) to minimise impacts to communities and water users (see Section 5.6.24 of Chapter 5: Project Description). Further, the use of groundwater for construction water is not a preferred water source for the Project.</p> <p>Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.24</p> <p>Chapter 15: Groundwater</p> <p>Table 15-20</p> <p>Appendix B5: Construction Water Requirements</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0050	Community Group	Groundwater	Groundwater drawdown	Landowners have planned their farming operations based on the availability and security of water. Impacting the availability or quality of water will have lasting effects. The changed impact in the aquifers may not be seen for some time and occur outside of the project footprint area, with delayed and prolonged impacts to the availability and security of water. Groundwater is essential for stock watering, especially during times of drought.	The make good scenario of drilling a new bore will need to account for the full impact of changed operations. In these cases, it is likely that farming operations are already significantly impacted and loss of bore access is just another management mitigation requirement.	<p>Only isolated drawdown in the vicinity of deep cuts is anticipated. No regional groundwater drawdown/wider impact on the aquifer is anticipated. See predictive modelling results in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.</p> <p>Baseline groundwater monitoring has been conducted and is ongoing at Project bores along the Project alignment. The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and Operations stages of the Project (e.g. quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project during the construction works and part of Operations stages of the Project.</p> <p>Bores required to be decommissioned within the Project footprint or access restricted as a result of the Project will have 'make-good' measures agreed in consultation with the landholder to ensure the agreed make-good solution is commensurate with the level of impact anticipated (see Chapter 15: Groundwater, Section 15.7.4 and Table 15-20).</p>	Chapter 15: Groundwater Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6.3
192	192.0051	Community Group	Groundwater	Land acquisition/compensation	To have valuable and essential water resources impacted is unacceptable in any other situation. Landowners effected by groundwater impacts may fall outside the project footprint area, or impacts may not be realised until after project compensation, limiting opportunities for impact assessments and compensation.	nil.	<p>Only isolated drawdown in the vicinity of deep cuts is anticipated. No regional groundwater drawdown/wider impact on the aquifer is anticipated. Currently no registered bores are located within the anticipated extent of drawdown associated with deep cuts and ARTC have undertaken a groundwater bore survey to help identify any unregistered bores within 80 m from the deep cuts. The results of this survey have been included in Chapter 15: Groundwater, Section 15.5.4. See predictive modelling results in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.5.</p> <p>Baseline groundwater monitoring has been conducted and is ongoing at Project bores along the Project alignment.</p> <p>Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 and 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The baseline groundwater dataset, in addition to regular groundwater monitoring during the Construction Works and Operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project during the Construction Works and part of Operations stages of the Project (see Chapter 15: Groundwater, Section 15.7.3 and Appendix U: Groundwater Technical Report, Section 8.3.1).</p>	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.5.4 Section 15.6.2 Section 15.7.3 Appendix U: Groundwater Technical Report Section 6.3.5 Section 8.3.1
192	192.0052	Community Group	Social Impact Assessment	Workforce and employment	There has been unacceptable and undue stress placed on stakeholders through consultation process, a general lack of information and failure to avoid and address issues raised. Agricultural industry is already experiencing extreme issues due to labour shortages, exacerbated by COVID. Policies for local employment will draw down on local labour availability will further impact local businesses and agriculture production operations. Despite awareness of these issues, there are no real strategies to avoid this impact or mitigation strategies identified. There is no indication of what the employment legacy for the Border to Gowrie project is.	<ul style="list-style-type: none"> Avoid labour impact to agriculture industry. Avoid impact to business operations. Consult the community to avoid impacts from the non-resident workforce accommodation at Turallin. ARTC to provide a labour sourcing strategy including the impacts of Covid to mitigate impacts on local labour availability. ARTC to liaise with agricultural industry bodies in addition to construction industry bodies to develop labour sourcing strategies. Consult with the community and affected landowners regarding the site selection and impacts of the Turallin Workers Accommodation. 	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 7.5.2 and Section 8.6.2 addresses the potential for Project impacts on tourism-related businesses and describes ARTC's commitments to ensuring that local and regional businesses benefit from the Project. This includes work with local industry representatives (Section 8.6.4) and business capability building programs that will be delivered by the Inland Rail Skills Academy, and as part of the Australian Industry Participation Plan (Section 8.6.3).</p> <p>The proposed site for a non-resident workforce accommodation facility in Turallin is not being pursued in the revised draft EIS. The Contractor is currently undertaking due diligence to identify a site in the Millmerran area, and will consult with TRC and the Millmerran community when this has progressed. An Accommodation Management Plan (described at Appendix X: Social Impact Assessment, Section 8.4.4) will be prepared for the Project in consultation with TRC and a range of other stakeholders.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.3 notes that the Contractor will be required to set local and Indigenous employment goals and report on the outcomes. This will include quarterly monitoring of the number of people from SIA study area that are employed in construction in line with targets, and reporting on outcomes as part of SIM reporting. Appendix X: Social Impact Assessment, Section 4.1.7 identified the number of long term operational jobs for the project as 10-15 FTE.</p> <p>The potential for labour draw has been identified in Appendix X: Social Impact Assessment, Section 7.2.2. Inland Rail Skills Academy programs are a key commitment to increasing the availability of suitably qualified local employees to reduce the drawdown on local labour. The workforce will also include specialist workers with skills and experience which isn't available locally. Although Project recruitment has not commenced, the Inland Rail Skills Academy has delivered preliminary training programs for local people to develop skills relevant to local industries including agriculture including:</p> <ul style="list-style-type: none"> Skills training for local residents focusing on transferrable agricultural skills held in December 2020 (Goondiwindi) Skills training for local Indigenous residents held in 2020-2022 Various initiatives for local school students to raise awareness of both STEM-based and trade careers available on Inland Rail held in 2020-2022 <p>Additionally, ARTC has partnered with Goondiwindi Regional Council to support a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment, Section 8.3.4 has been updated in this regard.</p> <p>Appendix X: Social Impact Assessment, Section 7.4.9 describes the potential legacy benefits that would eventuate in the Project region, and has been further detailed in response to submissions.</p>	Appendix X: Social Impact Assessment Section 4.1.7 Section 7.2.2 Section 7.4.9 Section 7.5.2 Section 8.3.3 Section 8.3.4 Section 8.4.3 Section 8.6.2 Section 8.6.3 Section 8.6.4
192	192.0053	Community Group	Social Impact Assessment	Workforce and employment	<ul style="list-style-type: none"> No consultation process regarding workforce accommodation site selection and impacts. Affected parties not described - Turallin community and DA Hall & Co poultry operations near Turallin consultation and impacts not described relating to the selection of the site for the non-resident workforce accommodation at Turallin. No legacy indication for increased employment for the project area. 	<ul style="list-style-type: none"> ARTC commitment to tourism and recreation initiatives in Millmerran. ARTC commitment to community legacy projects ARTC commitment to non-resident workforce accommodation and associated legacy commitments, once an agreed site is decided following consultation. ARTC commitment for an initiative in Millmerran to encourage workers to relocate to the region. ARTC to provide a housing strategy to mitigate impacts to local rent market and availability and affordability for local residents in Millmerran. Severance and amenity impacts Independent support provided to landowners were requested to help identify and plan for individual impacts and mitigation measures. Cost recovery for landowners available to engage independent expert advice on impact mitigation strategies during detailed design consultation and negotiation process. Local businesses ARTC commitment for an initiative to fund service providers (local Chambers, RDA) to provide procurement preparedness and capacity support for local and small businesses to competitively tender, and risk associated with temporary contracts. 	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 7.5.2 and Section 8.6.2 addresses the potential for Project impacts on tourism-related businesses and describes ARTC's commitments to ensuring that local and regional businesses benefit from the Project. This includes work with local industry representatives (Section 8.6.4) and business capability building programs that will be delivered by the Inland Rail Skills Academy, and as part of the Australian Industry Participation Plan (Section 8.6.3).</p> <p>The proposed site for a non-resident workforce accommodation facility in Turallin is not being pursued in the revised draft EIS. The Contractor is currently undertaking due diligence to identify a site in the Millmerran area, and will consult with TRC and the Millmerran community when this has progressed. An Accommodation Management Plan (described at Appendix X: Social Impact Assessment, Section 8.4.4) will be prepared for the Project in consultation with TRC and a range of other stakeholders.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.3 notes that the Contractor will be required to set local and Indigenous employment goals and report on the outcomes. This will include quarterly monitoring of the number of people from SIA study area that are employed in construction in line with targets, and reporting on outcomes as part of SIM reporting. Appendix X: Social Impact Assessment, Section 4.1.7 identified the number of long term operational jobs for the project as 10-15 FTE.</p> <p>The potential for labour draw has been identified in Appendix X: Social Impact Assessment, Section 7.2.2. Inland Rail Skills Academy programs are a key commitment to increasing the availability of suitably qualified local employees to reduce the drawdown on local labour. The workforce will also include specialist workers with skills and experience which isn't available locally. Although Project recruitment has not commenced, the Inland Rail Skills Academy has delivered preliminary training programs for local people to develop skills relevant to local industries including agriculture including:</p> <ul style="list-style-type: none"> Skills training for local residents focusing on transferrable agricultural skills held in December 2020 (Goondiwindi) Skills training for local Indigenous residents held in 2020-2022 Various initiatives for local school students to raise awareness of both STEM-based and trade careers available on Inland Rail held in 2020-2022 <p>Additionally, ARTC has partnered with Goondiwindi Regional Council to support a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment, Section 8.3.4 has been updated in this regard.</p> <p>Appendix X: Social Impact Assessment, Section 7.4.9 describes the potential legacy benefits that would eventuate in the Project region, and has been further detailed in response to submissions.</p>	Appendix X: Social Impact Assessment Section 4.1.7 Section 7.2.2 Section 7.4.9 Section 7.5.2 Section 8.3.3 Section 8.3.4 Section 8.4.3 Section 8.6.2 Section 8.6.3 Section 8.6.4
192	192.0054	Economics			The draft EIS fails at the highest level to provide the economic cost of the project to the agriculture industry. Given 70% of the Inland Rail footprint will involve land use change and sterilisation of Important Agricultural Areas, a matter of state importance, the full cost of this impact should be accounted. The impact extends beyond the direct footprint of land acquisition, but also disruption to operations, access, loss of production and value add, water resources and flooding impacts. Landowners well outside the rail footprint will have operations due to access impacted which is not recognised. The cost to operations and supply chain disruption from extended flood impacts on infrastructure and road networks is also not accounted.	nil.	<p>ARTC acknowledges that due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in the Economic Technical Report.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. The revised economic technical report Section 5.5 within Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr. qld. gov. au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aq=chrome..69i57.9731j0j4&sourceid=chrome&ie=UTF-8.</p> <p>The flood modelling, impact assessment and subsequent community consultation has also considered potential flooding impacts that fall outside of the Project's permanent and temporary foot prints. This information is detailed in Chapter 14: Flooding and Geomorphology and in Appendix E: Consultation Report in the revised draft EIS.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. 	Chapter 14: Flooding and Geomorphology Chapter 18: Economics Section 18.7.4 Section 18.9.1 Appendix E: Consultation Report Section 5.3 Appendix Y: Economic Impact Assessment Section 5.5
192	192.0055	Economics			Loss of agriculture land is calculated at a high level with no real assessment of actual loss based on commodity or added value. It fails to document cost of acquisition. It further fails to document any cost associated with disruption to agricultural operations, services, water, increased travel time and operational impacts. Furthermore, the impact to agricultural production and infrastructure as a result of increased inundation, velocity, erosion, and flood damage from the Inland Rail has not been accounted for. This impact surpasses the 2 km footprint and will have wide reaching impacts to adjoining landowners that have not been costed or considered beyond acknowledging there will be an impact. These landowners do not have access to compensation.	The current design and cost benefit assessments should be rejected based on a lack of and inaccurate cost information.	<p>ARTC acknowledges that due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. The revised economic technical report Section 5.5 within Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr. qld. gov. au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aq=chrome..69i57.9731j0j4&sourceid=chrome&ie=UTF-8.</p> <p>The flood modelling, impact assessment and subsequent community consultation has also considered potential flooding impacts that fall outside of the Project's permanent and temporary foot prints. This information is detailed in Chapter 14: Flooding and Geomorphology in the revised draft EIS and in Appendix E: Consultation Report.</p> <p>The Construction Authority for the Inland Rail Project in Qld, will be the Qld Department of Transport and Main Roads (DTMR). In relation to compensation matters, DTMR will be responsible for all land acquisition and resumptions required for the construction of the Project. Property acquisition, whether it be whole or partial, will be determined on a case-by-case basis, with negotiations being led by DTMR. Compensation for loss of land and interests in land will be assessed in accordance with the <i>Acquisition of Land Act 1967</i>.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment 	Chapter 18: Economics Section 18.7.4 Section 18.9.1 Appendix E: Consultation Report Section 5.3 Appendix Y: Economic Impact Assessment Section 5.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
192	192.0056		Economics		The draft EIS and supporting economic impact assessment technical report simply describes that there will be economic impacts to agriculture and fails to provide an assessment of these costs in real terms.	Full assessment of economic impact and cost to agriculture: Loss of agricultural land, acquisition of land and loss of production and value add Acquisition of land used for intensive livestock operations and loss of production and value add Temporary and permanent disruption to access and infrastructure Temporary and permanent disruption to stock and product movement Improvements in supply chain efficiency and impacts to supply chain; and Flood inundation of direct and indirectly impacted land use and supply chains, accounting for mitigation measures and cumulative impacts. Cost benefit analysis of economic impact compared to other route options, including cost to agriculture, land acquisition, impact to operations, mitigation measures and flooding.	<p>Due to the nature of the incremental assessment approach adopted for this revised draft EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Qld Government, costs have not been included in the Economic Technical Report.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the EIS, including to the calculated potential loss for rural communities. The revised economic technical report Section 5.5 within Appendix Y: Economic Impact Assessment outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggy, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57j931j0j4&sourceid=chrome&ie=UTF-8.</p> <p>The flood modelling, impact assessment and subsequent community consultation has also considered potential flooding impacts that fall outside of the Project's permanent and temporary foot prints. This information is detailed in Section 14.8.1 of Chapter 14: Flooding and Geomorphology and in Appendix E: Consultation Report in the revised draft EIS.</p> <p>As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. Regarding the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. 	<p>Chapter 2: Project Rationale Section 2.7</p> <p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 18: Economics Section 18.7</p> <p>Section 18.9.1</p> <p>Appendix E: Consultation Report Section 5.3</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
192	192.0057		Economics		Due to the scale and extent of the impact to agricultural land, covering 70% of the footprint, and the rail impacting a large portion of the Condamine Floodplain, it would be appropriate for a more detailed assessment of economic impacts to be conducted for a proper consideration of impacts, management strategies and offset provisions. The current level of detail does not provide a full cost and mitigation strategies managed at an individual site basis will have cumulative economic impacts that are not accounted for.	Provide full and updated cost analysis of the project delivery, economic impact to local industries and communities. Conduct an updated assessment of route options based on revised costs.	<p>ARTC acknowledges that due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. The revised economic technical report Section 5.5 within Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57j931j0j4&sourceid=chrome&ie=UTF-8.</p> <p>The flood modelling, impact assessment and subsequent community consultation has also considered potential flooding impacts that fall outside of the Project's permanent and temporary foot prints. This information is detailed in Section 14.8.1 of Chapter 14: Flooding and Geomorphology in the revised draft EIS and in Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. 	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 18: Economics Section 18.7</p> <p>Section 18.9.1</p> <p>Appendix E: Consultation Report Section 5.3</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
192	192.0058		Economics		The economic impact assessment states the following impacts to agriculture, but fails to provide the economic cost of impact: <ul style="list-style-type: none"> Loss of agricultural land Acquisition of land used for intensive livestock operations Disruption to access and infrastructure Disruption to stock and product movement Improvements in supply chain efficiency Flood inundation. 	nil.	<p>ARTC acknowledges that due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.</p> <p>In response to public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. The revised economic technical report Section 5.5 within Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57j931j0j4&sourceid=chrome&ie=UTF-8.</p> <p>The flood modelling, impact assessment and subsequent community consultation has also considered potential flooding impacts that fall outside of the Project's permanent and temporary foot prints. This information is detailed in Section 14.8.1 of Chapter 14: Flooding and Geomorphology in the revised draft EIS and in Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. 	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 18: Economics Section 18.7</p> <p>Section 18.9.1</p> <p>Appendix E: Consultation Report Section 5.3</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0001	Community Group	Social Impact Assessment	Directly impacted landowner	Impact to local and regionally significant business operating dryland crop production, irrigated crop production, various intensive animal production unit, feedmill and grading floor. DA Hall properties directly impacted by alignment.	nil.	<p>ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggy and poultry farm. Revised draft EIS Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.</p> <p>Appendix X: Social Impact Assessment, Section 7.2.1 notes that consultation with council and business community indicated there is a skilled workforce available as a result of workforce participation in other major infrastructure Projects in the region (including construction of the gasfields in the Western Downs and the Toowoomba Bypass).</p> <p>The potential for labour draw has been identified in Appendix X: Social Impact Assessment, Section 7.2.2 and management measures addressing potential labour draw are detailed in Appendix X: Social Impact Assessment, Section 8.3.7. The Project will supply accommodation to minimise any workforce impacts on local accommodation stocks.</p>	<p>Appendix X: Social Impact Assessment Section 7.2.1</p> <p>Section 7.2.2</p> <p>Section 8.3.7</p> <p>Section 8.6.1</p>
193	193.0002	Community Group	Project alignment	Directly impacted landowner	The current route alignment has failed to avoid major impacts directly to DA Hall poultry and piggy and farming operations. The proposed alignment impacts on both existing and future proposed development at chainage 133 km to 140 km. DA Hall have been presented with a number of potential alignment options traversing their property and provided feedback to ARTC. DA Hall are left uncertain about the final alignment and impacts to be caused to business operations including future expansion.	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations. <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p>	<p>Chapter 2: Project Rationale Section 2.10.9</p> <p>Figure 2-25</p> <p>Chapter 8: Land Use and Tenure</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0003	Community Group	Project alignment	Flood immunity	Impacts associated with the alignment crossing the Condamine floodplain.	nil.	<p>The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Panel) to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel draft and final reports are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au) (Section 1.4, Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The final report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the 4 Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> ▶ providing additional information which addressed the queries raised ▶ completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) ▶ committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) ▶ recommending that some issues raised are dealt with at Detailed Design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next Steps:</p> <ul style="list-style-type: none"> ▶ ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. ▶ ARTC flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. ▶ Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project Approvals and Corridor Acquisition, Detailed Design, Construction Works, Operations). ▶ A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. ▶ Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p> <p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25. The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure.</p>	<p>Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 5: Project Description Section 5.3.3 Chapter 14: Flooding and Geomorphology Section 14.4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Appendix A</p>
193	193.0004	Community Group	Project alignment		<p>Route selection assessment process is not transparent and accountable</p> <ul style="list-style-type: none"> ▶ ARTC refusal of countenance local and expert advice is negligent ▶ Route selection process fails to demonstrate like for like multi criteria assessment of all Route options and therefore lacks integrity ▶ The draft EIS lacks evidence to support and justify The final Route selection 	nil.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> ▶ Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson ▶ Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton ▶ Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton ▶ Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. 	<p>Chapter 2: Project Rationale Section 2.8 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>
193	193.0005	Community Group	Project alignment	Directly impacted landowner	<ul style="list-style-type: none"> ▶ Draft EIS does not include current multiple route options through DA Hall and Co properties, with implication to adjoining landowners Draft EIS fails to recognise the significance of direct impacts on DA Hall and Co's business, employees, local community, and economy, and the route selection process has failed to avoid these impacts ▶ Engagement in the consultation process on route alignment, investigation of impacts, and interrogation of ARTC information, has cost DA Hall and Co \$695,000 to date. 	The draft EIS is considered following the finalisation of route alignment and associated impacts are fully assessed.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>In accordance with mitigation measures in Chapter 8: Land Use and Tenure, Section 8.6 the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners would be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties.</p> <p>Chapter 18: Economics, Table 18.14, summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts. Further details are provided in Chapter 8: Land Use and Tenure.</p> <p>Compensation for loss of land and interests in land will be assessed in accordance with the <i>Acquisition of Land Act 1967</i> (Qld) in consultation with landowners on a case-by-case basis, in accordance with Appendix E: Consultation Report and Chapter 6: Stakeholder Engagement. Where acquisition is required, the Department of Transport and Main Roads (DTMR), as the constructing authority for the Project, will manage the compulsory land acquisition process under the <i>Acquisition of Land Act 1967</i> (Qld) for land required for the Project that is not State land.</p> <p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> ▶ Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure) ▶ Removal of two active crossings, increasing safety and travel benefits for the community ▶ Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event ▶ The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure ▶ Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure ▶ The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders, including DA Hall, will continue to take place through Detailed Design stage of the Project regarding potential Project and economic implications.</p>	<p>Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 6: Stakeholder Engagement Section 6.6.2 Chapter 8: Land Use and Tenure Section 8.6 Chapter 18: Economics Table 18.14 Appendix E: Consultation Report Section 5.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0006	Community Group	Project alignment		The route selection assessment process is not transparent and accountable. ARTC's refusal to countenance local and expert advice is negligent. Route selection process fails to demonstrate like for like Multi Criteria Assessment of all route options and therefore lacks integrity. The draft EIS lacks evidence to support and justify the final route selection.	nil.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie (Chapter 2: Project Rationale, Section 2.9.3).</p> <ul style="list-style-type: none"> ▶ Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson ▶ Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton ▶ Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton ▶ Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale, Section 2.8 and 2.9 of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. 	Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
193	193.0007	Community Group	Project alignment	Modelling	EIS fails to address TOR item 6.7 - does not provide sufficient detail to convey why certain option or courses of action are preferred and why others are rejected, against transparent and consistent criteria and the principles of ecological sustainable development. The current route alignment causes significant impact with little opportunity to minimise impact, mitigation measures for the current route impacts seek to compensate.	An independent review of the route selection assessment process, data and evidence, and outcomes.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie (Chapter 2: Project Rationale, Section 2.9.3).</p> <ul style="list-style-type: none"> ▶ Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson ▶ Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton ▶ Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton ▶ Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale, Section 2.8 and 2.9 of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. 	Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
193	193.0008	Community Group	Social Impact Assessment		Strategic options assessment - The EIS states (Appendix C) "the B2G communities, which will experience much of the impact without any direct benefit". Claims for direct benefits for the B2G communities are unsubstantiated. There are no direct or indirect benefits generated from the Inland Rail project identified for DA Hall.	nil.	<p>ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggery and poultry farm. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 provides a description of local employment benefits and aspirational employment targets. Appendix X: Social Impact Assessment, Section 7.4.9 provides an updated description of project legacy benefits, and has been further detailed in response to submissions.</p>	Appendix X: Social Impact Assessment Section 7.4.9 Section 8.3.1 Section 8.6.1
193	193.0009	Community Group	Stakeholder engagement		DA Hall are active participants in consultation with ARTC, the government and community processes over five years. The consultation has caused DA Hall business owners, managers and employees personal stress and high levels of uncertainty. <ul style="list-style-type: none"> ▶ consultation has not led to informed decision making or alleviation of genuine concerns and impacts to DA Hall. ▶ the consultation process has failed to influence the project alignment, design, and development to avoid impacts to DA Hall. The multiple route alignments over DA Hall properties has created additional uncertainty and difficulty to assess potential impacts. ▶ following the EIS, there is no further transparency or opportunity for consultation, and therefore no accountability of the final project development and its impacts. 	nil.	<p>ARTC acknowledges the uncertainty that Project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Section 7.1 of Appendix X: Social impact assessment details the strategies that ARTC has implemented to support affected residents, including the development of a Community Wellbeing Plan.</p> <p>The consultation approach for the Project was guided by the International Association of Public Participation (IAP2) engagement principles - also referred to as core values - which define the expectations and aspirations of the community engagement process. During the development of the revised draft EIS, stakeholder submissions and feedback have been incorporated into the reference design. Key examples of where DA Hall business and stakeholder feedback has resulted in design changes is shown in Chapter 6: Stakeholder Engagement, Section 6.6.</p>	Chapter 6: Stakeholder Engagement Section 6.6 Appendix X: Social Impact Assessment Section 7.1
193	193.0010	Community Group	Hazard and Risk	Directly impacted landowner	The Inland Rail will create safety concerns for DA Hall as a result of changes to agricultural business operations, machinery movement, highway crossings and flooding from changes to overland and stream flows.	nil.	<p>The reference design has been revised since the revised draft EIS public consultation. The revised reference design now includes a Millmerran Alternative Alignment, which has been based upon ongoing consultation with local business and community, as well as the content of many public submissions provided to the Office of the Coordinator-General and ARTC engaged with stakeholders relating to potential impacts on a major regional business and employer for the Millmerran community (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>In recognition of these potential impacts the revised reference design include:</p> <ul style="list-style-type: none"> ▶ Revised horizontal and vertical alignments for engineering design optimisation with reduced social impact ▶ Relocation of the Millmerran crossing loop to Chainage (Ch) 132.0 km to Ch 134.0 km without impacting the operational efficiency ▶ Road-over-rail grade separation (bridge) at Owen Scrub Road, rather than an active level crossing as previously proposed in the revised draft EIS ▶ Owen Scrub Road upgrade works to improve safety and increase design speeds in the approach to the rail crossing ▶ Removal of the Lindenmayer Road active level crossing, noting the design alignment no longer impacts this road. <p>The outcome of these design changes are:</p> <ul style="list-style-type: none"> ▶ An increase in safety and travel benefits for the community ▶ The rail alignment traverses less area impacted by the 1% Annual Exceedance Probability floodplain of the Condamine River ▶ A reduction in adverse economic and social impacts. <p>Details on the Millmerran Alternative Alignment are provided in Section 2.10.9 of Chapter 2: Project Rationale in the revised draft EIS.</p>	Chapter 2: Project Rationale Section 2.9.3 Section 2.10.9

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0011	Community Group	Project scope		Design - fails to provide detail design to assess impacts - flaws in modelling informing design and impact assessments as confirmed by flood panel and other experts- process to decide final route alignment and detailed design to be developed on an individual side basis, lacks transparency, accountability and consultation on the various joint issues.	nil.	The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project. ARTC worked collaboratively with the Independent International Panel of Experts for Flood Studies (the Panel) in their review & recommendations of the project. ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.	Chapter 5: Project Description Section 5.3.3
193	193.0012	Community Group	Project alignment	Modelling	ARTC have agreed for DA Hall to proceed with an independent detailed impact assessment, which is currently being undertaken and will be presented to ARTC by end of June.	nil.	ARTC will consider the independent assessment when it is received. The advantages of the Millmerran Alternative Alignment are described in Chapter 2: Project Rationale, Section 2.10.9 and shown on Figure 2-25 and include: <ul style="list-style-type: none"> ▶ Avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure Section 8.5.1) ▶ The removal of two active crossings, increasing safety and travel benefits for the community ▶ The alternative alignment traverses less area impacted by 1% AEP Condamine Floodplain event and modelling indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure ▶ A reduction in adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure ▶ The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations Consultation with impacted stakeholders will continue through the Detailed Design stage.	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 8: Land Use and Tenure Section 8.5.1
193	193.0013	Community Group	Project scope		Sustainability Guiding principles of ecologically sustainable development have not been followed. ARTC cannot justify their decisions to impact DA Hall and claim in the draft EIS that they have met their commitment to 'base the decision on balanced consideration of technical, economic and environmental and social issues'. - the MCA has not considered the long and short term economic, environmental, social and equity considerations as they relate to the regionally significant impacts to DA Hall- cost savings in freight from Melb to Bris to do not justify economic impacts on DA Hall and local community - imbalanced consideration of technical, economic, environmental and social issues and associated decisions as they relate to DA Hall and relevant broader projects.	Reject the claim that MCA has considered economic, environmental, social and equity considerations as they relate to DA Hall and sought to avoid or minimise them during the reference design development. - Reject claims that ARTC have met their commitments to ecologically sustainable development and associated ARTC policy commitments to sustainability and application.	The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25. Advantages of the revised reference design include: <ul style="list-style-type: none"> ▶ Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure Section 8.5.1) ▶ Removal of two active crossings, increasing safety and travel benefits for the community ▶ Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event ▶ The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure ▶ Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure ▶ The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations Consultation with impacted stakeholders will continue through the Detailed Design stage.	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 8: Land Use and Tenure Section 8.5.1
193	193.0014	Community Group	Land Use and Tenure	Directly impacted landowner	<ul style="list-style-type: none"> ▶ Impacts have not been avoided or minimised to the greatest possible extent, whereby the route ▶ Alignment will result in impact to current and proposed developments of significant intensive animal ▶ Production. Route selection and alignment fail to avoid or minimise impacts to 500 ha of Good Quality ▶ Agricultural Land and locally and regionally significant intensive animal operations. 	ARTC to disclose all route alignments, including current alignments under consideration for DA Hall to be included in the draft EIS and available for public consultation.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. Traversing State Forest is also to be minimised in balance with other environmental impacts. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that in some instances, impacts to existing agricultural operations cannot be avoided. Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. The Project footprint traverses, or is in proximity to, several current intensive animal husbandry operations as detailed in Chapter 8: Land Use and Tenure. Details of potential impacts to these feedlots, piggeries and poultry farm are provided in Section 8.5.1 (Table 8-33). The potential impact to the operations of Doug Hall Poultry Pty Ltd is discussed further in this section. Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report. The alignment has been amended to avoid the Doug Hall Poultry Farm. Options considered for the Project alignment are discussed in Chapter 2: Project Rationale Section 2.8 and 2.9, as a requirement of the ToR.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.2 Table 8-33 Table 8-46 Appendix E: Consultation Report
193	193.0015	Community Group	Land Use and Tenure	Directly impacted landowner	Uncertainty of route alignment within the corridor and a number of options proposed has resulted in high uncertainty as to what land and operations owned by DA Hall would be impacted. The draft EIS does not present all options discussed between ARTC and DA Hall, therefore ARTC have not provided information on impacts associated with these route options.	Draft EIS land use impact assessments to consider all route alignment options and potential impacts and available for public consultation for affected landowners. ARTC to disclose all route alignments, include current alignments under consideration for DA Hall to be included in the draft EIS and available for public consultation.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. Traversing State Forest is also to be minimised in balance with other environmental impacts. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that in some instances, impacts to existing agricultural operations cannot be avoided. The alignment has been amended via Millmerran Alternative Alignment route option, to avoid poultry and piggy farms. Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. The Project footprint traverses, or is in proximity to, several current intensive animal husbandry operations as detailed in Chapter 8: Land Use and Tenure. Details of potential impacts to these feedlots, piggeries and poultry farm are provided in Section 8.5.1 (Table 8-33). The potential impact to the operations of Doug Hall Poultry Pty Ltd is discussed further in this section. Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report. Options considered for the Project alignment are discussed in Chapter 2: Project Rationale Section 2.8 and 2.9, as a requirement of the ToR.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.2 Table 8-33 Table 8-46 Appendix E: Consultation Report
193	193.0016	Community Group	Land Use and Tenure	Overland flow/diversion	The land use impacts are not able to be assessed at a local scale, including impacts from change in land use associated with the Inland Rail infrastructure and influence on localised flooding to land use and potential cumulative impacts associated with site based mitigation measures. Flood modelling is flawed and there is little confidence in the current design to avoid and mitigate impacts. Cumulative or flow on impact of changed infrastructure in the floodplain should be made public and available for consultation to account for potential impacts to and from neighbours and for floodplain management.	nil.	Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. The flood mapping is based on a new model specifically developed for the Inland Rail Project Reference design and EIS. Flood modelling has been conducted for a range of design events (or AEPs - Annual Exceedance Probabilities) and tested for potential blockage, climate change and extreme event scenarios. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 18.2.3 Appendix T2: Hydrology and Flooding Technical Report - Volume - Volume 2
193	193.0017	Community Group	Land Use and Tenure		Impact to Class A and B good quality agricultural land	Avoid fragmentation of Class A and B land into lot sizes inconsistent with the current or potential land use of the land for agriculture. Avoiding development that will have irreversible impact on, or adjacent to, ALC Class A or B land. Consider and manage the cumulative and flow-on impacts of proposed non-agricultural development on agriculture.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. Traversing State Forest is also to be minimised in balance with other environmental impacts. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that there will be a loss of good quality agricultural land that cannot be avoided. Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2). Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none"> ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. As described in Chapter 2: Project Rationale (Section 2.8-2.10) of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.2 Table 8-46
193	193.0018	Community Group	Land Use and Tenure		No impact assessment included for the defined proposal developments of the temporary non-resident workforce accommodation, specifically at Turallin.	The EIS should extend to include the temporary non-resident workforce accommodation developments as having impact to current and proposed land use activities and cumulative impacts to local areas from all Inland Rail development activities.	Land use and zoning, as identified under the relevant local government planning schemes, is discussed in Chapter 8: Land Use and Tenure, Section 8.2. Section 8.5.1 Change in land use discusses in detail, potential impacts between potential impacts to land uses and the proposed rail infrastructure. As discussed in Chapter 3: Legislation and Project Approvals Process Sections 3.4.5 and 3.4.38, the approvals to build and operate non-resident workforce accommodation facilities will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. The locations of the two workforce accommodation facilities (in Yelarbon and Inglewood) have been identified and have been contained to rural land uses. As stated in Section 5.6.4 of Chapter 5: Project Description, the location for a Millmerran based non-resident workforce accommodation facilities has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation facilities will be undertaken during detailed design. Provision of non-resident workforce accommodation facilities and implementation of the Housing and Accommodation Management Plan in the Social Impact Management Plan will avoid the potential for impact to accommodation supply and diversity of housing within the townships in the impact assessment area as outlined in Appendix X: Social Impact Assessment. Following the construction of the Project, opportunities for the beneficial re-use of the non-resident workforce accommodation facilities will be investigated through consultation with local government and relevant stakeholders. If beneficial re-use cannot be identified, the non-resident workforce accommodation will be decommissioned, and the land will be subject to the following ARTC policies as a means of cleaning up, landscaping, and rehabilitating impacted land.	Chapter 3: Legislation and Project Approvals Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Chapter 8: Land Use and Tenure Section 8.2 Section 8.5.1 Appendix X: Social Impact Assessment

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0019	Community Group	Land Use and Tenure		Impact to a project of regional significance (DA Hall). Failed to avoid direct footprint impact to five important intensive animal operations and processing enterprises which have been identified by the Qld Government as important to the region and Qld.	Due to the nature of intensive animal operations, avoidance by the project area should be the first course of action.	<p>ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. Traversing State Forest is also to be minimised in balance with other environmental impacts. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that in some instances, impacts to existing agricultural operations cannot be avoided.</p> <p>The alignment has been amended to avoid the Doug Hall Poultry Farm.</p> <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>The Project footprint traverses, or is in proximity to, several current intensive animal husbandry operations as detailed in Chapter 8: Land Use and Tenure. Details of potential impacts to these feedlots, piggeries and poultry farm are provided in Section 8.5.1 (Table 8-33). The potential impact to the operations of Doug Hall Poultry Pty Ltd is discussed further in this section. Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report.</p> <p>Options considered for the Project alignment are already discussed in Chapter 2: Project Rationale Section 2.8 and 2.9, as a requirement of the ToR.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.2 Table 8-33 Table 8-46 Appendix E: Consultation Report
193	193.0020	Community Group	Land Use and Tenure	Baseline/background sampling	Existing land use in the Millmerran and Pampas area.	Update Figure 7.5p and 7.5q to correctly identify DA Hall operations (piggery and grain storage) and relevant sections (Table 7.11) to include townships.	Updated land use figures are presented in Chapter 8: Land Use and Tenure, Section 8.4.1, Figures 8.5a-w.	Chapter 8: Land Use and Tenure Section 8.4.1 Figures 8.5a-w
193	193.0021	Community Group	Social Impact Assessment		Good value for public funds would be to support the continuance of DA Hall business operations and development for long term economic security in the local community. The hundreds of local employees of DA Hall do not have access to compensation, nor do the local suppliers and businesses who currently benefit.	nil.	ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggery and poultry farm. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.	Appendix X: Social Impact Assessment Section 8.6.1
193	193.0022	Community Group	Land Use and Tenure	Directly impacted landowner	DA Hall have necessitated engaging a range of experts and economists to determine that impact to the current land use operations and production, and development approvals. The impact to these operations include, but not limited to production impacts from vibration, noise and light, biosecurity, fragmentation and disruption, supply chain interruption, animal welfare issues from flooding, impact to development opportunities.	nil.	<p>ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. Traversing State Forest is also to be minimised in balance with other environmental impacts. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However, it is acknowledged that in some instances, impacts to existing agricultural operations cannot be avoided (Chapter 8: Land Use and Tenure, Section 8.6.1).</p> <p>The alignment has been amended to avoid the Doug Hall Poultry Farm.</p> <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>The Project footprint traverses, or is in proximity to, several current intensive animal husbandry operations as detailed in Chapter 8: Land Use and Tenure. Details of potential impacts to these feedlots, piggeries and poultry farm are provided in Section 8.5.1, Table 8-33. The potential impact to the operations of Doug Hall Poultry Pty Ltd is discussed further in this section. Details on consultation undertaken for the Project, including with operators of intensive animal husbandry operations, are included within Appendix E: Consultation Report.</p> <p>Options considered for the Project alignment are already discussed in Chapter 2: Project Rationale Section 2.8 and 2.9, as a requirement of the ToR.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.2 Table 8-33 Table 8-46 Appendix E: Consultation Report
193	193.0023	Community Group	Project alignment		The same assessment and consideration for the forestry route options was not given in the Condamine floodplain to avoid the sterilisation of Class A agricultural land and significantly impact DA Hall poultry and piggery operations. The justification for avoiding impacts to agriculture in one area and not another is unjust and discriminatory without basis.	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure, Section 8.6.1) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p>	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 8: Land Use and Tenure Section 8.6.1
193	193.0024	Community Group	Traffic and Transport	Operational traffic	25 trains per 24 hours at road crossings will impact operational efficiencies for nationally important flood supply. Impacts to road network for poultry and piggery operations including access to feedmill, office and other farm facilities and the Gore Highway. Movement of heavy machinery between paddocks and properties will be re-routed from minor roads, onto the Highway due to farm segregation and impacts to road network.	nil.	<p>The revised reference design has updated the alignment near Millmerran and no longer impacts the poultry and piggery operations from a severance or road network perspective.</p> <p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>Further, Appendix AA: Traffic Impact Assessment Section 5.12.3 details ARTC commitments to a Construction Environmental Management Plan (CEMP) and Traffic Management Plan. A CEMP will be prepared prior to construction commencing by the construction contractor. The CEMP will include a TMP, attached as an Appendix to the CEMP. The TMP will reflect the finalised TIA, undertaken once a construction contractor has been appointed and construction routes are finalised. It will be developed in consultation with DTMR, the relevant LGA, Department of Education, affected stakeholders and an accredited road safety auditor. The plan will also take into account communications received and will be aligned with the Construction Community and Stakeholder Management Plan. The TMP will identify the impacts that construction traffic is likely to have on the transport infrastructure and detail ameliorative measures required to mitigate all identified impacts of the Project. This may include potential temporary or permanent intersection works. The TMP will detail measures to:</p> <ul style="list-style-type: none"> Safely manage traffic when undertaking works in the road reserve Minimise traffic delays resulting from the development/construction Manage construction vehicles entering and exiting the site Maintain satisfactory property access Minimise disruption to adjacent properties Minimise disturbance to the environment Meet the requirements of legislation and codes of practice regarding traffic management Cater for special events <p>Finally, ARTC will continue to engage in consultation with the community and relevant government agencies (inc. emergency services and school services) through the Detailed Design and Construction Works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Section 5.12.3
193	193.0025	Community Group	Traffic and Transport		Pavement impact assessment - DA Hall private unformed and private formed roads will be impacted, as well as adjoining landowners, but the final number is not determined as the final route alignment and detailed designs are not available.	nil.	<p>The revised reference design has updated the alignment near Millmerran and no longer impacts the poultry and piggery operations from a severance or road network perspective.</p> <p>Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts. However, in the case of a privately owned road, consultation will occur regarding restoring the privately owned road or access to at a minimum, it's pre-Project condition.</p>	Appendix AA: Traffic Impact Assessment Section 5.6
193	193.0026	Community Group	Flooding	Increase in flows	Design and layout of occupational crossing solutions should also account for the impact of increased flooding and risk associated with the Inland Rail infrastructure, as changes in water flows, levels and drainage will increase erosion risks to roads.	nil.	<p>Operational flood impacts on land have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Further mitigation measures proposed are provided in Chapter 14: Flood and Geomorphology, Section 14.9 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Section 14.8.1 Section 14.9 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17 Section 22
193	193.0027	Community Group	Land Resources		Reference to the DA Hall soil conservation plan relating to 3RP16081, to inform Inland Rail design to avoid or mitigate impact is subject to multiple alignment options on 'Moyness' and therefore cannot be assessed. There is no indication of how soil management plans will be addressed, and maintenance of the objectives and functionality preserved and protected.	Assess opportunity to avoid impact to the area under the soil conservation plan on finalisation of the Inland Rail alignment.	<p>ARTC acknowledges that the currency of all soil conservation plans (SCPs) within the Project footprint will need to be verified through detailed design for proposed works. The verification process will involve a review of all available soil conservation plans (including all those listed in Chapter 9: Land Resources, Section 9.4.4) and engagement with affected stakeholders to identify if SCPs have been developed for a property, and not approved under the <i>Soil Conservation Act 1986</i> (Qld).</p> <p>ARTC will continue to work with the Office of the Coordinator-General and the Department of Resources in the Detailed Design stage and during the preparation of the required amendments to the SCPs required for the Construction Works stage.</p>	Chapter 9: Land Resources Section 9.4.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0028	Community Group	Land Resources	Survey effort/field investigation data	Lack of ground truthing of land resource related impacts to DA Hall- Note, page 8-11 - no soil sampling sites were conducted on DA Hall properties, or neighbouring properties. - Table - 8.4 A SRTS mapping along the project alignment on p 8-42, relating to DA Hall properties include chainage 137.3 km to 150.5 km. The transition of soil type impact will depend on the final alignment selection - p8-46 chainage 133 km to 138.2 km show the dispersion is very high, sodic throughout and imperfectly drained. - Table 8.7 typically erodibility ratings for soils encountered along the project alignment state that sodosols have a high (4) and very high (5) erodibility rating.	Locally experienced soil experts should inform the draft EIS reference design on the appropriateness of the Inland Rail alignment and design measures relevant to soils of the Condamine Floodplain. The Coordinator-General's Office should consult with QDNRME soil scientists relating to the appropriateness of the Inland Rail design measures as presented and seek more detailed assessment to address impacts to a level of high confidence to protect soil assets. Conduct soil sampling and site assessment along the Condamine Floodplain for more informed and appropriate design to be included in the draft EIS.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). The surveys were conducted by suitably qualified and experienced persons and the report was endorsed by Certified Professional Soil Scientist. Soil management units from the investigation are provided in Section 3.2, Section 5.0 and Table 5.3. This level of investigation is sufficient to allow determination of soil suitability and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. Chapter 9: Land Resources, Section 9.6.3, Table 9-29 also details the following: "An Erosion and Sediment Control Plan (ESCP) will be implemented as a component of the CEMP and will guide development of site or Section specific ESCPs and include detailed erosion hazard assessments and erosion and sediment control structure designs. The erosion and sediment control measures will be developed by a certified practitioner in erosion and sediment control, in accordance with the intent of Best Practice Erosion and Sediment Control (IECA, 2008) and the Soil Conservation Guidelines for Queensland (DSITI, 2015) and will be implemented during construction of the Project". Section 3.2 and 3.3 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan also details mitigation measures for soil units present within the Project footprint. ARTC have consulted QDNRME as a contributor to the study area for the North-South Rail Corridor study as indicated in Table E-6 of Appendix E: Consultation Report of the revised draft EIS. Consultation will continue with the relevant stakeholders for the Condamine floodplains. ARTC has also undertaken engagement with local soils experts through the Darling Downs Soils Group.	Chapter 9: Land Resources Section 9.6.3 Table 9-29 Appendix J: Soil Assessment Report Section 3.2 Section 5.0 Table 5.3 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3 Appendix E: Consultation Report Table E-6
193	193.0028	Community Group	Land Resources	Erosion	As shown on Figure 8.6d, p8-63, the DA Hall property falls within the HG2 very high erosion risk and the kd10 medium erosion risk area. The lack of suitable design mitigation measures for the increased velocity of flood flows along the Inland Rail infrastructure will create erosion risk and tunnelling effect into adjacent land use at the point of culverts. Erosion risks from change in flow and velocity will be imposed on existing DA Hall infrastructure, including roads, and agricultural land. Undetermined impacts and erosion risk will be present to neighbouring properties. - p8-59 - vertosols are strongly sodic and when clay particles are exposed to water, the particles expand and disperse or slake. Inundation of soils, combined with vibration of the trains will result in soil liquification. This effect and impact have not been properly addressed or mitigated.	nil.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 5.0. This level of investigation is sufficient to determine soil suitability and identify dispersive (sodic) soils and amelioration methods in relation to bulk earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assisted in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. Appendix AB: Earthworks Strategy and Draft Soil Management Plan also presents mitigation measures for soil units present within the Project footprint (see Section 3.2 and 3.3).	Appendix J: Soil Assessment Report Section 5.0 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3
193	193.0029	Community Group	Land Resources	Erosion	p8-155 Permanent change to landform and topography. Management of landform is slope batter optimisation and put in erosion control matting. Soil experts will contest that these measures are not appropriate to effectively manage erosion risk and effect for the conditions of the Condamine Floodplain. Waiting until the detailed design stage to engage soil experts to inform engineering management measures fails to seek avoidance of significant and persistent issues, that will have far reaching impact beyond the project footprint.	nil.	A detailed soil investigation has been undertaken at an approximate 1:10,000 mapping scale (Appendix J: Soil Assessment Report). The surveys were conducted by suitably qualified and experienced persons and the report was endorsed by Certified Professional Soil Scientist. Soil management units from the investigation are provided in Section 5.0. This level of investigation is sufficient to allow determination of soil suitability including potential erosion risk in relation to bulk earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. Section 3.2 and 3.3 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan also presents mitigation measures for soil units present within the Project footprint.	Appendix J: Soil Assessment Report Section 5.0 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3.2 Section 3.3
193	193.0030	Community Group	Land Resources	Directly impacted landowner	EIS reference 8.6.2 Loss of soil resources 500 ha would be lost due to direct impact of the project alignment. The project would directly result in a loss of production capacity of the soil resource, including a loss of \$58,800 per annum of income from 500 ha of cropping.	nil.	An assessment of the economic impacts (EIA) per lot and commodity is outside the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for the EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, and the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS. In response to public consultation, ARTC has made a number of updates to the draft EIS, including updates to the Project alignment. ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cropping lands, cattle feedlots, piggeries and poultry farms. This has resulted in a number of updates in the revised draft EIS, including to the calculated potential loss for rural communities. Refer to Chapter 18: Economics. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including: <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. The Construction Authority for the Inland Rail Project in Qld will be the Department of Transport and Main Roads (DTMR). In relation to compensation matters, DTMR will be responsible for all land acquisition (either partial or whole property) required for the construction of the Project. Property acquisition, whether it be whole or partial, will be determined on a case-by-case basis, with negotiations being led by DTMR. Compensation for loss of land and interests in land will be assessed in accordance with Section 20 of the Acquisition of Land Act 1967 (ALA).	Chapter 6: Stakeholder Engagement Section 6.6 Section 6.7 Chapter 18: Economics Section 18.9.1 Appendix E: Consultation Report Section 4 Appendix Y: Economic Impact Assessment Section 5.5
193	193.0031	Community Group	Land Resources	Erosion	Tunnel erosion is likely where concentrated flow along the IR alignment will result in breakout points, particularly around the culverts	nil.	A detailed soil investigation has been undertaken at a 1:10,000 mapping scale (Appendix J: Soil Assessment Report). Soil management units from the investigation are provided in Section 5.0. This level of investigation is sufficient to allow determination of soil suitability including potential erosion risk in relation to bulk earthworks. Findings from the detailed soil investigation have informed soil-specific management measures and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning.	Appendix J: Soil Assessment Report Section 5.0
193	193.0032	Community Group	Land Resources	Mitigation measures	Mitigation through reference design phase only three culverts proposed in Design Drawings at Moyeness despite the cross Section intersecting three local catchment areas. Bridge structure and water movement in the area has not been appropriately considered resulting in scour and erosion.	nil.	Scour and erosion protection downstream of culverts has developed since the reference design stage. During the initial reference design stage, the scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the recommended soil velocity thresholds. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection was allowed for within the revised Reference Design (refer to Section 5.1 of Appendix H: Geomorphology Assessment). Further analysis of erosion risk is detailed in Appendix H: Geomorphology Technical Report and Chapter 14: Flooding and Geomorphology, Section 14.7.6 and 14.8.2.	Chapter 14: Flooding and Geomorphology Section 14.7.8 Section 14.8.2 Appendix H: Geomorphology Assessment Section 5.1
193	193.0033	Community Group	Land Resources	Mitigation measures	The Section of Inland rail crossing Moyeness is already highlighted as having very high erosion potential within the draft EIS. This area should be avoided at the design stage. The draft EIS process does not allow for site specific issues to be identified to be included in the final EIS.	The scale and detail of design elements are not appropriate to inform impact at the property scale. As the alignment is not finalised, site specific impacts are not known.	ARTC has completed an assessment in Appendix J: Soil Assessment Report, of the Project's potential impacts on soils in accordance with the guidelines listed below: <ul style="list-style-type: none"> DES Guidelines for Soil Survey along Linear Features DoR Queensland Soil and Land Resource Survey Information Guideline, Version 2.00 CSIRO Guidelines for surveying soil and land resources and Australian soil and land survey field handbook Appendix J: Soil Assessment Report was completed to a scale of 1:10,000 and has identified soil management units to inform appropriate soil management plans (as described in Appendix J: Soil Assessment Report, Section 1.3). Given the soil sampling intensity and the refinement of rail alignment in the revised reference design, it is considered that impacts at a property scale can be assessed and appropriate mitigation measures proposed in Section 3, Part B: Soil Management Plan of Appendix AB: Earthworks Strategy and Draft Soil Management Plan. This was undertaken by a Suitably Qualified Soil Scientist, and the review (including soil management plan) was undertaken by a third-party Certified Professional Soil Scientist. The soil survey work, data collection and laboratory analysis updates have been reflected in Chapter 9: Land Resources, Section 9.4.	Chapter 9: Land Resources Section 9.4 Appendix AB: Draft Earthworks Strategy and Soil Management Plan Section 3 Appendix J: Soil Assessment Report Section 1.3
193	193.0034	Community Group	Land Resources	Cumulative impacts	Performance criteria states that project works do not cause erosion beyond the temporary or permanent works. The surface water Section and as evidenced in this section, the soil characteristics on Moyeness have high erosion potential, with swelling and cracking and will impact both Inland Rail infrastructure and will lead to soil loss and erosion on Moyeness with downstream impacts. The alignment has not avoided impact in this instance and fails to demonstrate suitable mitigation measures.	nil.	Potential changes in velocity have been assessed and are discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology and the "Flood impact objective outcomes" Section of each catchment within Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. The scour protection was designed in accordance with Austroads Guide to Road Design Part 5B: Drainage (AGRD). Scour protection was specified where the culvert outlet velocities for the 1% AEP event exceeded the allowable soil velocities shown in Table 3.1 of AGRD. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection was allowed for within the revised Reference Design. Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17 Appendix B

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0035	Community Group	Landscape and Visual Amenity		DA Hall has not been identified as a visual receptor in the project assessment and the multiple options of route alignment makes it difficult to determine exact impact. Lighting impacts during construction (construction traffic, night works hours) and operation from train headlights. The elevation of the alignment over the flood plain would also direct light into the poultry sheds (Diamond Layer Farm).	Finalise route alignment for DA Hall properties in order to inform an impact assessment.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Chapter 11: Flora and Fauna Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3
193	193.0036	Community Group	Landscape and Visual Amenity		The visual impact assessment process was conducted for landscape amenity, which is not appropriate for site based impacts. The lack of relevant methodology is a gap in the process.	Conduct a visual impact assessment to DA Hall poultry operations.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Chapter 11: Flora and Fauna Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3
193	193.0037	Community Group	Landscape and Visual Amenity		Figure 9.4d landscape character assessment, identifies DA Hall as LCT D: Dry Croplands and Pastures, it does not identify the intensive animal industry piggery and poultry operations. There is no relevant corresponding assessment of light impact to intensive animal operations.	nil.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Chapter 11: Flora and Fauna Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3
193	193.0038	Community Group	Landscape and Visual Amenity		Impact assessment and mitigation measures for light pollution and impacts to production are not acknowledged or addressed in the EIS.	nil.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Chapter 11: Flora and Fauna Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3
193	193.0039	Community Group	Landscape and Visual Amenity		Impacts from lighting, noise and vibration on egg production and poultry health and wellbeing has not been considered, assessed or mitigated. The project would impact on medium term losses due to egg peritonitis or physical damage to layer, and chronic losses due to long term stress responses.	nil.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Obtrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Chapter 11: Flora and Fauna Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0040	Community Group	Landscape and Visual Amenity		<p>DA Hall commissioned a vet quantifying the potential impacts from visual amenity to layers across the productive flock life as:</p> <ul style="list-style-type: none"> Increased mortality due to smotherers ranging from 0.2 to 3% of total flock per annum per event incidence. Increased mortality due to egg peritonitis ranging from 0.2 to 3% of total flock per annum per event incidence. Overall cumulative Hen Housed production losses reflected in keel bone damage and egg quality issues, reducing recovery of saleable A grade shell eggs, by 1.5 to 4.5%. Increased mortality due to smotherers ranging from 1.0 to 5% of total pullets placed per annum per event incidence 	nil.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Otrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Otrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Otrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3</p>
193	193.0041	Community Group	Landscape and Visual Amenity		<p>Appendix attached - Dr Peter Scott Technical report - avian health and welfare</p> <p>[SEE IMPORTANT NOTES BELOW]</p>	nil.	<p>The Millmerran Alternate Alignment (MAA) has been based on ongoing consultation with local business and community. The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Project flora and fauna assessment in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the Construction Works stage will be short term in nature and for the Operations stage, will exist as pulses of short duration (e.g. for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (see Lighting Impact Assessment in Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Otrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (see the Otrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment).</p> <p>In regard to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. See the Otrusive Lighting Assessment Appendix of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the Detailed Design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7 Appendix K: Landscape and Visual Impact Assessment Appendix 3</p>
193	193.0042	Community Group	Flora and Fauna		Biosecurity - Appendix attached - Dr Peter Scott Technical report - avian health and welfare	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0043	Community Group	Flora and Fauna	Directly impacted landowner	Biosecurity: impacts to the poultry and piggery operations have not been addressed. The risks of rail movements are low however the consequences of a change in disease status could have a serious impact on the business operations for DA Hall through loss of productivity and increased cost of preventative disease programs.	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0044	Community Group	Flora and Fauna	Directly impacted landowner	Biosecurity - depending on the avian pathogen aerosol transmission can be over metres to kilometres, particularly for viruses with the latter. Some pathogens can be present in multiple animal species and thus interspecies cross contamination.	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0045	Community Group	Flora and Fauna		Biosecurity - the objective of the biosecurity program is to ensure there is a functional exclusion boundary that prevents entry and spread of and diseases on the properties at all times and appropriate biosecurity procedures in place.	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0046	Community Group	Flora and Fauna		<p>Biosecurity DA Hall & Co have limited ability to put measures in place to control major disease transmission routes due to Inland Rail construction and operation, relating to:</p> <ul style="list-style-type: none"> Air - Aerosol transmission from trucks carrying chickens/waste... travelling past the farm. People - Contractors, maintenance personnel, neighbours, service personnel and visitors who have recently been on other poultry farms; people who have recently recovered from, or still suffering from, gastrointestinal disease. 	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0047	Community Group	Flora and Fauna	Directly impacted landowner	Biosecurity - the construction phase on Moyeness presents direct risk from people carrying unknown disease threats from unknown sources, with increased risk of unauthorised access to production and processing areas. The construction and operation of the workers' accommodation will pose the same level of threat to the adjoining poultry operations due the presence and movement of people.	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens.</p>	Chapter 24: Draft Outline Environmental Management Plan
193	193.0048	Community Group	Flora and Fauna		ARTC have stated they can make no guarantee that the rail will not be used to freight livestock. The operation of the Inland Rail presents direct risk from air borne diseases from livestock freight of unknown origin. During outbreaks of diseases the Inland Rail will become a high risk vector for spread into or from Queensland	nil.	<p>Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include reference to relevant guidelines to control potential deleterious pathogens. For instance, Section 21.5.1 of Chapter 21: Hazard and Risk states that the transportation of livestock with potential to carry <i>Coxiella burnetii</i> (C. burnetii) bacteria, can cause Q-Fever in humans. Biosecurity mitigation measures will be further investigated in detailed design.</p>	<p>Chapter 21: Hazard and Risk Section 21.5.1 Chapter 24: Draft Outline Environmental Management Plan</p>
193	193.0049	Community Group	Air Quality		TOR requirements 11.130 and 11.131 Draft EIS to describe the characteristics of potential airborne pathogens and diseases that may be transmitted/released by livestock on the Inland Rail.	nil.	<p>Poultry operations within 1 kilometre of the alignment have been included in the revised air quality assessment for the Project as sensitive receptors. Piggery operations are located further than 1 kilometre from the alignment, and are therefore outside the study area for the Project, and have not been included in the assessment as sensitive receptors (Chapter 12: Air Quality, Section 12.32).</p> <p>There are no relevant air quality goals set specifically for the protection of piggery and poultry land uses. However, the air quality assessment has considered potential impacts to ecological receptors due to nitrogen dioxide (NO2) (refer Section 12.52 in Chapter 12: Air Quality) and agricultural uses due to dust deposition (Section 12.51 in Chapter 12: Air Quality).</p> <p>Based on the results of dispersion modelling, which included the poultry operations as sensitive receptors, the air quality assessment has determined that the operation of the Project will not result in significant air quality impacts to ecological receptors or agricultural uses. On the basis of the dispersion modelling results, significant air quality impacts to the Millmerran chicken farm infrastructure and piggery operations are not anticipated.</p> <p>The Project alignment has been updated in the revised reference design to avoid direct severance of properties associated with a Millmerran based chicken farm infrastructure and piggery (the Millmerran Alternative Alignment), with the new alignment now located to the southeast of the chicken farm infrastructure and piggery operations.</p>	<p>Chapter 12: Air Quality Section 12.32 Section 12.51 Section 12.52</p>
193	193.0050	Community Group	Air Quality		Avian pathogen aerosol transmission can be over metres to kilometres and therefore a considerable risk to DA Hall poultry operations from the freight of poultry on Inland Rail, and similarly for the piggery. - The transmission of airborne/aerosol distribution of pathogens and diseases as an impact relating to air quality has not been acknowledged or addressed.	<p>Piggery and poultry operations on DA Hall properties to be identified as sensitive air receptors within and adjacent to the footprint (depending on the final alignment).</p>	<p>The Project alignment has been updated in the revised reference design to avoid direct severance of properties associated with a Millmerran chicken farm infrastructure and piggery operations (the Millmerran Alternative Alignment), with the new alignment now located to the southeast of the Millmerran chicken farm infrastructure and piggery operations. As a result, aerosol transmission of disease is not expected to be a risk to a Millmerran chicken farm infrastructure and piggery and a buffer zone is not considered to be required.</p> <p>Notwithstanding that, Section 12.31, Table 12-3 of Chapter 12: Air Quality describes the air quality pollutants of concern for the construction and operation of the Project. In addition to these common pollutants, a qualitative risk assessment of Q-fever has also been included in the assessment in Section 12.52 of Chapter 12: Air Quality. Section 12.52 of Chapter 12: Air Quality provides a description of <i>Coxiella burnetii</i> (C. burnetii) bacteria, which can cause Q-Fever in humans, and provides an assessment of risk.</p> <p>Overall, based on the information reviewed, the Project and the transport of livestock along the Inland Rail Project alignment is considered to present a low level risk for Q-fever. It is noted that as part of the assessment of Q-fever risk, Queensland Health was consulted. Queensland Health advised that the risk of Q-fever infection from livestock trains would be "broadly similar to a road train transporting cattle".</p> <p>The Project would not introduce any new pathway of transmission that doesn't already exist. Additionally, it is reasonable to expect that controls would already be in place to prevent/intercept these pathways, e.g. appropriate housing and screening of livestock.</p>	<p>Chapter 12: Air Quality Section 12.31 Table 12-3 Section 12.52</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0051	Community Group	Air Quality		The biosecurity risk associated with aerosol transmission of disease is addressed in Section 10 (of DA Halls submission).	Identify the potential impact zone from aerosol transmission of disease from freight of livestock on the Inland Rail and condition a minimum buffer zone of project area to all piggery and poultry operations.	<p>The Project alignment has been updated in the revised reference design to avoid direct severance of properties associated with a Millmerran based chicken farm infrastructure and piggery (the Millmerran Alternative Alignment), with the new alignment now located to the southeast of the poultry and piggery operations.</p> <p>Livestock trains are not proposed to use the majority of the Border to Gowrie alignment, but will join the Inland Rail Project alignment at Gowrie via the West Moreton System. The Project alignment has been updated in the revised reference design to connect to the existing Millmerran branch line, north of poultry and piggery operations, therefore livestock trains will not use the proposed draft EIS Project alignment adjacent to this poultry and piggery operation. As a result, aerosol transmission of disease is not expected to be a risk to these operations and a buffer zone is not considered to be required.</p> <p>Notwithstanding that, Section 12.31 of Chapter 12: Air Quality describes the air quality pollutants of concern for the construction and operation of the Project. In addition to these common pollutants, a qualitative risk assessment of Q-fever has also been included in the assessment in Section 12.52 of Chapter 12: Air Quality. Section 12.52.6 of Chapter 12: Air Quality provides a description of Coxiella Burnetii (C. burnetii) bacteria, which can cause Q-Fever in humans, and provides an assessment of risk.</p> <p>Overall, based on the information reviewed, the Project and the transport of livestock along the Inland Rail Project alignment is considered to present a low level risk for Q-fever. It is noted that as part of the assessment of Q-fever risk, Queensland Health was consulted. Queensland Health advised that the risk of Q-fever infection from livestock trains would be "broadly similar to a road train transporting cattle".</p>	Chapter 12: Air Quality Section 12.31 Section 12.52 Section 12.52.6
193	193.0052	Community Group	Air Quality		Draft EIS 11.7.3, Figure 11.15s - Doug Hall Enterprises, poultry farming, was identified as an existing emission source required to report annually. The Table 11.23 states that the distance from the project alignment is 1 km, however based on the multiple route alignment scenarios, the proximity may be much closer. The receptors omit the poultry and piggery operations, relating only to residences.	nil.	<p>Poultry operations within 1 kilometre of the alignment have been included as sensitive receptors in the revised air quality assessment for the Project. Piggery operations are located further than 1 kilometre from the alignment, and are therefore outside the study area for the Project, and have not been included in the assessment as sensitive receptors (Chapter 12: Air Quality, Section 12.32).</p> <p>Sensitive receptors considered in the assessment are discussed in Section 12.4.5 of Chapter 12: Air Quality. Major impacts to sensitive receptors outlined in Table 12-37 (Section 12.8) of Chapter 12: Air Quality of the revised draft EIS.</p>	Chapter 12: Air Quality Section 12.32 Section 12.4.5 Section 12.8 Table 12-37
193	193.0053	Community Group	Air Quality		Draft EIS 11.6.6 only addresses odour emissions from the freight of livestock on Inland Rail and does not present methodology for identifying and assessing the impact of pathogens or disease transmission from livestock.	nil.	<p>The Project alignment has been updated in the revised reference design to avoid direct severance of properties associated with a Millmerran based chicken farm infrastructure and piggery (the Millmerran Alternative Alignment), with the new alignment now located to the southeast of the poultry and piggery operations.</p> <p>Notwithstanding that, Section 12.31 of Chapter 12: Air Quality describes the air quality pollutants of concern for the construction and operation of the Project. In addition to these common pollutants, a qualitative risk assessment of Q-fever has also been included in the assessment in Section 12.52 of Chapter 12: Air Quality. Section 12.52.6 of Chapter 12: Air Quality provides a description of Coxiella Burnetii (C. burnetii) bacteria, which can cause Q-Fever in humans, and provides an assessment of risk.</p> <p>Overall, based on the information reviewed, the Project and the transport of livestock along the Inland Rail Project alignment is considered to present a low level risk for Q-fever. It is noted that as part of the assessment of Q-fever risk, Queensland Health was consulted. Queensland Health advised that the risk of Q-fever infection from livestock trains would be "broadly similar to a road train transporting cattle".</p>	Chapter 12: Air Quality Section 12.31 Section 12.52 Section 12.52.6
193	193.0054	Community Group	Flooding	Directly impacted landowner	The route selection and design of the Inland Rail infrastructure will cause changes to the current Condamine River, Back Creek and Grasree Creek catchments during flooding and flows, with potential to cause direct and considerable impact to DA Hall.	nil.	<p>Operational flood impacts on land have been described in Chapter 14: Flooding and Geomorphology, Section 14.8.1 and the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Further mitigation measures proposed are provided in Chapter 14: Flooding and Geomorphology, Section 14.9.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Section 14.8.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17 Section 22
193	193.0055	Community Group	Flooding		TOR item 6.6 is not addressed, as a suitable assessment cannot, and has not, been conducted by ARTC relating to the flood impacts of the Inland Rail alignment and infrastructure design to the extent where it can be adequately assessed by DA Hall. There is no evidence of mitigation measures to avoid or minimise flooding impacts, rather the flood proofing of the Inland Rail infrastructure transfers the impacts away from the rail and on to the adjoining land use and DA Hall operations. The draft EIS material cannot demonstrate for DA Hall that the TOR is addressed.	Reject assessments and management strategies as being incomplete, on the basis of the lack of detail and the impact local account and failing to address impact identified during consultation.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIO) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 and Chapter 14: Flooding and Geomorphology Section 14.6.3. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Flood mapping has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the Digital Platform for each of the Flood Impact Objectives including:</p> <ul style="list-style-type: none"> ▶ Change in peak water levels ▶ Change in peak velocity ▶ Change in time of inundation ▶ Change in hazard ▶ Change in velocity (with FIO cut-off's applied) ▶ Change in hazard (with FIO cut-off's applied) ▶ Change in time of inundation (with FIO cut-off's applied) <p>The web-based Digital Platform will be publicly available at the same time as the revised draft EIS is available for public consultation and will remain available post-consultation of the revised draft EIS. The Digital Platform includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances.</p> <p>The PDF mapping in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances aligned with the mapping requirements outlined in RFI 301, for the 1% and 20% AEP events. The PDF mapping includes the sensitivity runs and calibration events.</p> <p>Flooding mitigation and measurement measures applicable to the Project have been discussed in Section 14.9.1 of Chapter 14: Flooding and Geomorphology and Section 22 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.9.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17 Section 22 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
193	193.0056	Community Group	Flooding		193.0056 TOR items 6.4, 6.3, 11.53, 11.54 to adequately met	nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIO) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 and Chapter 14: Flooding and Geomorphology Section 14.6.3. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Flood mapping has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the Digital Platform for each of the Flood Impact Objectives including:</p> <ul style="list-style-type: none"> ▶ Change in peak water levels ▶ Change in peak velocity ▶ Change in time of inundation ▶ Change in hazard ▶ Change in velocity (with FIO cut-off's applied) ▶ Change in hazard (with FIO cut-off's applied) ▶ Change in time of inundation (with FIO cut-off's applied) <p>The web-based Digital Platform will be publicly available at the same time as the revised draft EIS is available for public consultation and will remain available post-consultation of the revised draft EIS. The Digital Platform includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances.</p> <p>The PDF mapping in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 includes local and regional catchments for the Existing Case, Developed Case, Change Mapping and Exceedances aligned with the mapping requirements outlined in RFI 301, for the 1% and 20% AEP events. The PDF mapping includes the sensitivity runs and calibration events.</p> <p>Flooding mitigation and measurement measures applicable to the Project have been discussed in Section 14.9.1 of Chapter 14: Flooding and Geomorphology and Section 22 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.9.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17 Section 22 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
193	193.0057	Community Group	Flooding	Directly impacted landowner	TOR item 11.62 and 11.63 are not met, as the reference design fundamentally causes impact and fails to minimise impact, with all flood objectives unreasonably exceeded. Chainage 137.7 dwelling (CON_ID_78) +42mm above flood objective increase in peak water level Missing chainage 133.4 to 138.55 for DA Hall, where adjoining impact to agricultural land is +900 mm and +117mm above flood objective increase in peak water level	Reject the flood objectives and justified impacts, on the basis of unacceptable and irreversible impacts to local hydrology and natural environment, poultry and piggery operations, property and infrastructure, land resources, economic impacts and cost, and safety. Reject the current flood modelling on the basis of it being flawed.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIO) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 and Chapter 14: Flooding and Geomorphology, Section 14.6.3. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0058	Community Group	Flooding		Information gaps Issues with the flood modelling and designs were reviewed in detail by an expert hydrologist and formally reported and documented with ARTC in 2017 and 2019. These flaws were not acknowledged or addressed in the draft EIS material. The Independent International Panel of Experts for the Flood Studies relating to this project further infers to the critical flaws in the modelling relating to reliability and uncertainty of the information and omission of critical data and details. Assessment of flooding impacts is limited due to the multiple Inland Rail alignment options currently traversing DA Hall & Co properties. The type and extent of impacts varies considerably under different alignment scenarios.	nil.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Appendix T1: Hydrology Technical Report - Volume 1, Section 7.6 and 8.6.</p> <p>Operational flood impacts on land in the Condamine River floodplain and Back Creek, based on the revised reference design, updated models and FIOs, have been described in Chapter 14: Flood and Geomorphology Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.5.3 and 8.5.3. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.5.3</p> <p>Section 7.6</p> <p>Section 8.5.3</p> <p>Section 8.6</p>
193	193.0059	Community Group	Flooding		Impact assessment area (draft EIS Section 12.6.1) The impact assessment area for the assessment of surface water and hydrology is not at an appropriate scale for the extent of impact to be assessed. The change to flow of water through DA Hall & Co properties, influenced by three local watercourses, is not determinable based on the information provided.	nil.	<p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume II</p>
193	193.0060	Community Group	Flooding		Impact assessment area (draft EIS Section 12.6.1) The impact assessment area is not finalised due to the multiple route alignment options for DA Hall & Co properties. The final route alignment will impact adjoining landowners who may or may not currently fall in the footprint presented by the draft EIS material.	nil.	<p>The EIS is focussed on the chosen alignment selected by the Australian Government.</p> <p>The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale Section 2.8 and 2.9 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment.</p> <p>Operational flood impacts on land in the Condamine River floodplain and Back Creek have been described in Chapter 14: Flooding and Geomorphology, Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.5.3 and 8.5.3. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Section 2.9</p> <p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.5.3</p> <p>Section 8.5.3</p>
193	193.0061	Community Group	Flooding		12.6.3.1 Hydrologic design The design has been developed based on flood impact objectives set by ARTC for the adjoining land use which aims to justify the acceptability of changes to flooding as a result of the Inland Rail. Table 12.7 Project hydraulic design criteria. On the outset, the flood immunity performance criteria fail to meet the TOR requirement to avoid and minimise impact. The route alignment requires the design to protect the rail infrastructure from known flooding impacts, whilst deflecting these flooding impacts direct to adjacent DA Hall land use and property. The subsequent flood impact objectives Table 12.9 seek to justify acceptability of changes* to peak water levels, duration of inundation, flood flow distribution, velocities, and extreme event risks.	nil.	<p>Operational flood impacts on land have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>Further mitigation measures proposed are provided in Chapter 14: Flood and Geomorphology, Section 14.9.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Section 14.9.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 5-17</p> <p>Section 22</p>
193	193.0062	Community Group	Flooding		The submissions provides detail as to how ARTC have failed to genuinely demonstrate incorporating design refinement and stakeholder and community feedback into reference design. Several reports have been prepared for ARTC to consider as well as meetings held to discuss findings: "Submission to the Yelarbon to Gowrie Project Reference Group", detailed review of models by Dr Markar and discussed in a meeting with ARTC, review by Dr Markar of the draft EIS material and Flood Panel report.	nil.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology Table 14-4</p> <p>Appendix T1: Flooding and Hydrology Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.6</p> <p>Section 8.6</p>
193	193.0063	Community Group	Flooding	Directly impacted landowner	No consultation or agreement by the community of these flood impacts, they have been imposed on DA Hall which will result in unacceptable and devastating impacts to the business and community.	There is no level of impact that is acceptable to DA Hall & Co from changes to flooding. Consultation with ARTC has previously established the consequence of impacts to DA Hall, and further evidenced in this submission, which are deemed to be extraordinary, and as such any increased impact should not be accepted as an objective in the draft EIS.	<p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume II</p>
193	193.0064	Community Group	Flooding	Flood immunity	The Flood impact objectives should meet the overall outcome of the Toowoomba Regional Planning Scheme Flood Hazard Overlay Code for development use, siting, design and layout avoids or mitigates the flood risk to people, property and infrastructure. The Condamine Floodplain crossing is categorized as Level FR4 Extreme and FR3 High in large sections, and under any other development proposal the Code seeks to limit development in areas of intolerable risk (FR3 and FR4) so as to avoid the risk presented by the flood hazard. Code is in place to protect property and the safety of people, and exemption and contempt for the outcomes of this code presents unacceptable risk and flood hazard for the community.	The flood impact objectives should meet the overall outcome of the Toowoomba Regional Planning Scheme Flood Hazard Overlay Code for development use, siting, design and layout avoids or mitigates the flood risk to people, property and infrastructure.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.11</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 5-17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0065	Community Group	Flooding	Increase in peak water levels	Rail development will have a direct impact to DA Hall and cumulative impact to adjoining landowners within the local floodplain area as a result of changing flood levels and characteristics of Back Creek, Grasstree Creek and Condamine River	The flood impact objective for change in peak water level tolerance needs to be 0 mm, to all DA Hall properties, structures, infrastructure, agricultural land and other areas to avoid and minimise impact.	Operational flood impacts on land have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flood and Geomorphology and the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Section 1.4). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. Further mitigation measures proposed are provided in Chapter 14: Flood and Geomorphology, Section 14.9.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17 Section 22
193	193.0066	Community Group	Flooding		The flaws and local of confidence in the flood model presents further difficulty and risk for Toowoomba Regional Council to assess future developments to meet the Code and adequately manage risk and hazards under the unknown local changes to flood conditions	The Flood Impact Objectives should meet the overall outcome of the Toowoomba Regional Planning Scheme Flood Hazard Overlay Code for development use, siting, design and layout avoids or mitigates the flood risk to people, property and infrastructure.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17
193	193.0067	Community Group	Flooding	Increase in peak water levels	The flood impact objective for change in peak water level tolerance needs to be 0 mm, to all DA Hall properties, structures, infrastructure, agricultural land and other areas to avoid and minimise impact.	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17
193	193.0068	Community Group	Flooding	Increase in peak water levels	The flood impact objective for change in peak water level tolerance needs to be 0 mm, to all road networks, especially the full extent of the Gore Highway.	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17
193	193.0069	Community Group	Flooding	Increase in time of submergence	The flood impact objective for change in duration of inundation simply states to identify changes to duration of inundation* and to justify the acceptability of changes* . There is no action to avoid or mitigation a change. The objective for change in duration of inundation should be no change in Time of Submergence relating to DA Hall properties.	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17
193	193.0070	Community Group	Flooding	Increase in time of submergence	The flood impact objective for change in duration of inundation should be no change in Time of Submergence relating to all road networks, especially the full extent of the Gore Highway.	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for State-controlled roads. The updated FIOs are summarised in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 and Chapter 14: Flooding and Geomorphology, Section 14.4. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.4 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
193	193.0071	Community Group	Flooding	Increase in flows	The flood impact objective for change of flood flow distribution aims to minimise changes in natural flow patterns and flood flow distribution. Again the objective seeks to identify any changes and justify acceptability of changes* .	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17
193	193.0072	Community Group	Flooding	Increase in flows	Flood flow distribution objective to minimise changes in natural flow patterns and flow distribution across floodplain areas* will very unlikely be met based on the flood immunity with 300 mm freeboard to formation level, which effectively will interrupt all natural flow patterns and distribution for Back Creek, Grasstree Creek and the Condamine River. The use of culverts, will divert, concentrate and increase velocity of flows. The associated erosion risk and shadowing impacts to adjacent land use are addressed in Land Resources. The developed case flood models demonstrates there will be changes in the flow distribution, however the scale is not appropriate to determine local impacts and appropriateness of the reference design to minimise or avoid impact.	nil.	The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. This assessment included a quantitative assessment of flow distribution with supporting mapping provided in Appendix Q of Appendix T2: Hydrology and Flooding Technical Report - Volume 2.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17 Appendix T2: Hydrology and Flooding Technical Report - Volume 2 Appendix Q
193	193.0073	Community Group	Flooding	Increase in flows	The flood impact objective for change of flood flow distribution should have no tolerance of exceeding the objective to minimise changes in natural flow patterns and flow distribution across floodplain areas.	nil.	The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Chapter 14: Flooding and Geomorphology, Section 14.11. This assessment included a quantitative assessment of flow distribution with supporting mapping provided in Appendix Q of Appendix T2: Hydrology and Flooding Technical Report - Volume 2.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17 Appendix T2: Hydrology and Flooding Technical Report - Volume 2 Appendix Q: Environmental Offset Delivery Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0074	Community Group	Flooding	Modelling	ARTC has failed to be transparent, accountable and respectful in its conduct of community and stakeholder engagement, and has subsequently failed to validate model performance in an effort to gain acceptance of modelling and calibration outcomes. The review by the International Flood Panel addresses the inadequacy and appropriateness of the assessment methodology, which is also in addressed in Dr Markers review attached.	nil.	Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Chapter 14: Flooding and Geomorphology, Section 14.5. The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.2 and 7.3.	Chapter 14: Flooding and Geomorphology Section 14.5 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.2 Section 7.2.2 Section 7.3
193	193.0075	Community Group	Stakeholder engagement	Mitigation measures	DA Hall has participated in engagement and consultation to the greatest extent, providing expert review and documented information to inform the process. The issues raised have not been addressed and the impacts resulting from the project have not been avoided or mitigated.	nil.	ARTC notes that the reference design and revised draft EIS have been updated to incorporate an altered Project alignment through near DA Hall's property in direct response to their identified concerns. Appendix E: Consultation Report, Section 4 outlines key changes made to the reference design in response to stakeholder input.	Appendix E: Consultation Report Section 4
193	193.0076	Community Group	Flooding	Modelling	Calibration to historical flood events - where possible, modelling of each waterways catchment was calibrated against historical events, with results matched to recorded data from available and suitable stream gauges, community feedback and anecdotal flood data. Condamine River was calibrated to the 1991 and 2010 flood events. acceptable calibration of hydrological and hydraulic models was achieved for these catchments and the models were considered suitable for assessment of the Project. Refer to Dr Markers report attached.	nil.	The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.2 and 7.3.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.2 Section 7.2.2 Section 7.3
193	193.0077	Community Group	Flooding	Overland flow/diversion	The Inland Rail route alignment across the Grasree Creek and Condamine River intercepts and interferes with overland flow. The floodproofing of the Inland Rail is essentially a weir across this Section of the floodplain, with the culverts and bridge causing a tunnel effect. The diversion of flow to culverts will cause shadowing where particularly medium size flood events will see areas miss out on overland flow. There is no assessment conducted on impact to dam catchments, uneven crop infiltration and associated economic loss. The adjoining landowners to the alignment traversing DA Hall will be impacted by these effects, which are undetermined due to the multiple route alignments and related scenarios. The matter of Overland Flow, as opposed to flooding, has not been appropriately or adequately addressed.	nil.	Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. Significant bridge openings and cross drainage culverts have been allowed for in the Reference Design to retain the existing flow of flood water. Flood flow distribution has been assessed and is discussed in Chapter 14: Flooding and Geomorphology, Section 14.8.1. Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
193	193.0078	Community Group	Flooding	Modelling	Comment on Section 12.10.2 of the draft EIS: Given the flaws with the flood models, and lack of local scale validation, there is no clear demonstration of how the impact assessment at a local scale of changed flooding was conducted. The tables for the Condamine River Hydrology and Flooding assessment against the objectives demonstrate that changes fall outside and significantly exceed the set objective levels. There is low confidence in the assessment and a high level of concern for the failure to meet objectives.	nil.	Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. Operational flood impacts on land in the Condamine River floodplain and local catchments have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.5.3 and 18.6.3. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flood and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3 Section 18.6.3 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
193	193.0079	Community Group	Flooding - Condamine River		Comment on Section 12.10.2.3 of the draft EIS: Table 12.75 demonstrates the change in peak water levels OUTSIDE the flood impact objectives levels which directly impact DA Hall. The design therefore does not meet its own objectives and fails to avoid and minimise impacts to DA Hall as per required by the EIS TOR. The determination of compensation as a result of the nominated breach of the objectives, and the subsequent impact as result of all flood impacts is not outlined. In some sections, under all flood events minor changes in peak water levels are expected to occur.	nil.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology, Section 14.6.3, of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4
193	193.0081	Community Group	Flooding	Flood immunity	Dr Markar reports under Existing Conditions several state-controlled roads have low flood immunity. For example, the Core Highway has only about 10% AEP immunity and Millmerran-Leyburn Road and Pampas-Horrane Road have only about 50% AEP flood immunity from the Condamine River, and Millmerran-Inglewood Road has less than 20% AEP flood immunity from Back Creek. It is not known whether these roads (and other flood affected roads) would be upgraded in the near future to improve their flood immunity. The modelling undertaken for the Reference Design does not appear to consider any currently planned or proposed future State or TRC controlled road upgrades within the Condamine River and Back Creek floodplains. These will need to be considered and their impacts on the B2G Project FIOs must be assessed in the modelling undertaken for the Detail Design. • See WRM hydrology report for more.	nil.	Consultation with road managers has been undertaken as part of the revised draft EIS on planned and future roads. Responses were received from Department of Transport and Main Roads, Goondiwindi Regional Council and Toowoomba Regional Council with details provided in the "Planned and future roads" Section of each catchment within Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each of these sections also identifies how planned and future roads have been considered within the hydraulic modelling.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5-17
193	193.0083	Community Group	Flooding	Increase in velocities	Velocities based on the scale of Figure 20.20f, level of detail provided, and modelling flaws, it is unlikely that the scour protection designs are well informed and appropriate for the localised conditions, soils and changed flow patterns. Concentration of flow, changes in flow path, and even slight changes in velocity in small to mid-flow events will create erosion risk and impact over time.	nil.	Potential changes in velocity have been assessed and is discussed in Chapter 14: Flooding and Geomorphology, Section 14.8.1 and the "Flood impact objective outcomes" Section of each catchment within Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 -17). The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design. Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5-17 Appendix B
193	193.0084	Community Group	Groundwater	Directly impacted landowner	The Inland Rail construction will potentially impact groundwater resources and activities which DA Hall are dependent on for poultry and piggery operations.	nil.	Assessment of registered bores and water entitlements within the 1 km investigation area around the proposed alignment has been undertaken as part of the EIS revision to identify bores/licences existing after the draft EIS was released (see Appendix U: Groundwater Technical Report, Section 4.7.5). ARTC is also undertaking an additional bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project (see Chapter 15: Groundwater, Section 15.5.4). As outlined in Section 15.5.4 of Chapter 15: Groundwater, the bore survey targeted landowners within the Project footprint and within 80 m of deep cuttings (>10 m BGL). The survey identified three unregistered groundwater bores within the Project footprint which are all used for stock watering and domestic usage. These unregistered bores are not considered further in the revised draft EIS due to limited bore information (i.e., construction details, geology, and chemistry). Registered bores identified within the groundwater impact assessment area are discussed in Section 15.5.4 of Chapter 15: Groundwater. No unregistered bores were identified outside the Project footprint with potential to be impacted by groundwater impacts from the Project.	Chapter 15: Groundwater Section 15.5.4 Appendix U: Groundwater Technical Report Section 4.7.5

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0085	Community Group	Groundwater	Private groundwater bore/s	On 4 October 2019, DA Hall & Co received a SARA Development Permit approval for Operational work for taking or interfering with water (drilling a water bore for stock intensive purposes), and construction of a bore on Lot 3 on RP16081. (SARA Reference 1909-13203 SDA). The draft EIS does not list all four bores and does not recognise the development approval for the drilling of a bore on Moyeness. There is not information provided by the draft EIS, or communicated by ARTC relating to the impact to the bores.	nil.	Assessment of registered bores and water entitlements within the 1 km investigation area around the proposed alignment has been undertaken as part of the EIS revision to identify bores/licences existing after the draft EIS was released (see Appendix U: Groundwater Technical Report, Section 4.7.5). ARTC is also undertaking an additional bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project (see Chapter 15: Groundwater, Section 15.5.4). As outlined in Section 15.5.4 of Chapter 15: Groundwater, the bore survey targeted landowners within the Project footprint and within 80 m of deep cuttings (>10 m BGL). The survey identified three unregistered groundwater bores within the Project footprint which are all used for stock watering and domestic usage. These unregistered bores are not considered further to inform the revised draft EIS due to limited bore information (i.e., construction details, geology, and chemistry). Registered bores identified within the groundwater impact assessment area are discussed in Section 15.5.4 of Chapter 15: Groundwater. No unregistered bores were identified outside the Project footprint with potential to be impacted by groundwater impacts from the Project.	Chapter 15: Groundwater Section 15.5.4 Appendix U: Groundwater Technical Report Section 4.7.5
193	193.0086	Community Group	Groundwater	Private groundwater bore/s	Four existing licenced bores are located on DA Hall properties within the Inland Rail footprint: 1 X bore on Moyeness Water Licences 614229; 614231; 190574 3 X bores on Diamond Layer Farm Water Licences 614229; 614230; 190574. A map of the proposed and existing bores is attached. (Attachments Property Map_Bores_DA Hall & Co; Moyeness New Bore Location Approved)	nil.	Assessment of registered bores and water entitlements within the 1 km investigation area around the proposed alignment has been undertaken as part of the EIS revision to identify bores/licences existing after the draft EIS was released (see Appendix U: Groundwater Technical Report, Section 4.7.5). ARTC is also undertaking an additional bore survey to confirm the location/presence of registered bores and to identify any unregistered bores that may be impacted from the Project (see Chapter 15: Groundwater, Section 15.5.4). As outlined in Section 15.5.4 of Chapter 15: Groundwater, the bore survey targeted landowners within the Project footprint and within 80 m of deep cuttings (>10 m BGL). The survey identified three unregistered groundwater bores within the Project footprint which are all used for stock watering and domestic usage. These unregistered bores are not considered further to inform the revised draft EIS due to limited bore information (i.e., construction details, geology, and chemistry). Registered bores identified within the groundwater impact assessment area are discussed in Section 15.5.4 of Chapter 15: Groundwater. No unregistered bores were identified outside the Project footprint with potential to be impacted by groundwater impacts from the Project.	Chapter 15: Groundwater Section 15.5.4 Appendix U: Groundwater Technical Report Section 4.7.5
193	193.0091	Community Group	Noise and Vibration	Operational rail noise	TOR item 11.121 not adequately addressed - the draft EIS doesn't map impact of the noise and vibration emissions from the operation of the project to the values of the receiving environment with respect to DA Hall. The lack of acknowledgement of impacts to poultry has omitted relevant assessment criteria for noise and vibration that would determine accepted levels of impact to the receiving environment, and where exceeded the type and extent of potential impact. Reference made to movement of trains along the mainline and at the operation of level crossings at Lindenmayer Road and Hall Road.	Animal welfare expert/s to identify criteria parameters for safe operating distance of Inland Rail to avoid adverse impact to DA Hall poultry and piggery production.	Noise and vibration impacts to livestock are not assessable under the revised draft EIS terms of reference and relevant legislation. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.	Chapter 16: Noise and Vibration Section 16.9 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 7
193	193.0095	Community Group	Stakeholder engagement	Directly impacted landowner	ARTC has failed to demonstrate the conduct of a proper, fair and respectful consultation process with DA Hall as a major affected landholder. The company's experience to date undermines the prospect to engage in respectful planning and negotiations in future.	nil.	Prior to and since the draft EIS, the engagement program has been ongoing. Representatives of the submitter have corresponded with, and had face to face meetings with, senior ARTC representatives including the ARTC Chair and Inland Rail CEO. During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD 2016). ARTC notes that since the draft EIS the reference design and revised draft EIS have been updated to incorporate an alternative Project alignment near Millmerran moving it off the DA Hall's property to remove any impact to the business. The engagement supporting this is detailed in Appendix E: Consultation Report, Section 5.	Appendix E: Consultation Report Section 5.16
193	193.0096	Community Group	Stakeholder engagement	Directly impacted landowner	Community wellbeing - the project has caused enormous stress on DA Hall business owners, management and staff over the period of the project consultation.	nil.	ARTC acknowledges the uncertainty that Project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Section 7.1 of Appendix X: Social Impact Assessment details the strategies that ARTC has implemented to support affected residents and the commitment to develop a Community Wellbeing Plan. Engagement with local councils and community stakeholders regarding community wellbeing is ongoing. Further details on legacy benefits can be found in Appendix X: Social Impact Assessment As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Appendix X: Social Impact Assessment Section 7.1 Chapter 24: Draft Outline Environmental Management Plan
193	193.0097	Community Group	Social Impact Assessment		The draft EIS documents refers to direct acquisition of the DA Hall properties affected by the Inland Rail footprint. However, the Inland Rail alignment options are not finalised, and correspondence with ARTC does not indicate a final decision for acquisition or compensation. Detailed impact assessments currently being undertaken will determine the extent of impacts to DA Hall and will inform further decision making for both parties. This level of uncertainty raises questions on the course of action and mitigation strategies directly referencing DA Hall and poultry operations stated throughout the draft EIS documents. Without the detailed impact assessment, the Coordinator General will not be informed to consider the full extent of impact to DA Hall business, employment and the local economy.	nil.	ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggery and poultry farm. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.	Appendix X: Social Impact Assessment Section 8.6.1
193	193.0098	Community Group	Social Impact Assessment	Workforce accommodation village	The draft EIS identifies the site location for the non-residents workforce accommodation at Millmerran which will directly impact on current and future operations of DA Hall poultry activities including traffic, biosecurity and safety.	nil.	The proposed site for a non-resident workforce accommodation facility in Turallin is not being pursued in the revised draft EIS. The Contractor is currently undertaking due diligence to identify a site in the Millmerran area, and will consult with TRC and the Millmerran community when this has progressed. An Accommodation Management Plan (described in Appendix X: Social Impact Assessment, Section 8.4.4) will be prepared for the Project in consultation with TRC and other stakeholders.	Appendix X: Social Impact Assessment Section 8.4.4
193	193.0099	Community Group	Stakeholder engagement	Workforce accommodation village	There has been no consultation process regarding workforce accommodation site selection and impacts. The affected parties and impacts considerations are not described, including to the local Turallin community and DA Hall poultry operations in close proximity to the proposed non-resident workforce accommodation site.	ARTC to consult with the local community and DA Hall and Toowoomba Regional Council to identify impacts from the non-resident workforce accommodation at Turallin.	As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing. Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report). The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).	Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4
193	193.0100	Community Group	Project scope	Workforce accommodation village	Through the EIS documentation there is no consultation reference on site location of the workforce accommodation. An assessment of the site selection process for the non-resident workforce accommodation is not evident and how ARTC came to identify suitable land parcels. Also not evident is consultation and documentation of impacts for the Turallin accommodation site. Appendix U Social Impact Assessment Technical Report p305 notes that communities and council are to be consulted and expectations incorporated into the AMP.	ARTC to consider an alternative site for the temporary non-resident workforce accommodation to avoid cumulative impacts on Turallin road and traffic management, safety, and biosecurity risk to poultry operations.	An engagement session with the community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement with ARTC and the Principal Contractor. ARTC has made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders. Details of non-resident workforce accommodation facilities are provided in Chapter 5: Project Description, Section 5.6.4. An initial assessment of workforce demand and safe commutable distances has identified a potential need for non-resident workforce accommodation in the vicinity of Yelarbon, Inglewood and Millmerran. Locations for non-resident workforce accommodation facilities in proximity to these townships have been identified with consideration for: <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of the site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, vibration and air quality impacts originating from the sites ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. ▶ The locations for the Yelarbon and Inglewood non-resident workforce accommodation facilities are provided in Table 5-22 and Figures 5-18 and 5-19. The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. Chapter 3: Legislation and Project Approvals, Section 3.4 states that approvals for the establishment and operation of non-resident workforce accommodation at Yelarbon and Inglewood will be sought through the revised draft EIS and the site selection and due diligence associated with locating the third, Millmerran based, non-resident workforce accommodation will be undertaken during detailed design. The approvals process for non-resident workforce accommodations will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Principal Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during the Detailed Design stage of the Project. As mentioned in Chapter 3: Legislation and Project Approvals Section 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.	Chapter 5: Project Description Section 5.6.4 Table 5-22 Figure 5-18 Figure 5-19 Chapter 3: Legislation and Project Approvals Process Section 3.4 Section 3.4.5 Section 3.4.38

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193	193.0101	Community Group	Project scope	Workforce accommodation village	Failure to include the non-resident workforce accommodation as part of the project impact assessment area, means the current DA Hall development activities at Turallin were not identified. DA Hall have Development Approvals and ERAs for a project of regional significance at Eilerslie and Avondale and Glenferrie which will be directly impacted by the accommodation development activities and associated traffic and exposure to biosecurity risk.	nil.	<p>An engagement session with the community was held on Wednesday 13 October 2021 with the ARTC stakeholder engagement team. Feedback received from the attendees at this session expressed a strong preference for the non-resident workforce accommodation facility to be located within Millmerran Township and for further engagement from the Project and the Principal Contractor. ARTC have made note of community concerns received through this community engagement session and related EIS submissions and are committed to continued consultation with the relevant stakeholders.</p> <p>Details of non-resident workforce accommodation facilities are provided in Chapter 5: Project Description, Section 5.6.4. An initial assessment of workforce demand and the preference for accommodation within a safe commutable distances has identified a potential need for non-resident workforce accommodation in the vicinity of Yelarbon, Inglewood and Millmerran. Locations for non-resident workforce accommodations in proximity to these townships have been identified with consideration for a number of criteria including the potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa.</p> <p>The location for the Yelarbon and Inglewood non-resident workforce accommodation are provided in Table 5-22 and Figures 5-18 and 5-19.</p> <p>The location for a Millmerran based non-resident workforce accommodation has not been included in the revised draft EIS. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design.</p> <p>Chapter 3: Legislation and Project Approvals, Section 3.4.5 and 3.4.38 states that approvals for the establishment and operation of non-resident workforce accommodation at Yelarbon and Inglewood will be sought through the revised draft EIS and the site selection and due diligence associated with locating the third, Millmerran based, non-resident workforce accommodation will be undertaken during detailed design. The approvals process for non-resident workforce accommodations will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Principal Contractor. The location, capacity and layout of the accommodations that are required will be confirmed and finalised during detailed design. As mentioned in Chapter 3: Legislation and Project Approvals, Sections 3.4.5 and 3.4.38, non-resident workforce accommodation facility secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approvals Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Table 5-22 Figure 5-18 Figure 5-19</p>
193	193.0102	Community Group	Traffic and Transport	Cumulative impacts	Eilerslie is a large scale Free Range Poultry operation that has existing traffic management and biosecurity measures in place, which is accessed via Eilerslie Road on Turallin Road, just south of the proposed accommodation site. Adjacent to Eilerslie on Turallin Road is the Avondale property, which has potential development for large scale poultry operations. To the north of the accommodation site is Glenferrie property, another significant poultry operation. These poultry operations supply significant number of eggs daily and in addition to operational staff movements, trucks regularly deliver feed and collect eggs on a daily basis.	nil.	<p>As detailed in the revised draft EIS Chapter 5: Project Description (Section 5.6.4), ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities outlined in Section 5.6.4 of Chapter 5: Project Description included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project (see Section 5.11 and Table E-56 of Appendix E: Consultation Report).</p> <p>The Turallin site has been assessed as not a feasible location for the third non-resident workforce accommodation. A third non-resident workforce accommodation site will be required in the Millmerran area and feasibility assessments will be undertaken to identify the optimal location for the site. The site selection and due diligence associated with locating a Millmerran based non-resident workforce accommodation will be undertaken during detailed design. In March 2023 ARTC commenced engagement with key stakeholders including the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions are included in Appendix E – Consultation report. ARTC are committed to continued consultation with the relevant stakeholders and further analysis will be undertaken by ARTC on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment Section 8.4).</p>	<p>Chapter 5: Project Description Section 5.6.4 Appendix E: Consultation Report Section 5.11 Table E-56 Appendix X: Social Impact Management Plan Section 8.4</p>
193	193.0103	Community Group	Social Impact Assessment	Workforce and employment	Employment: There is no indication of what the project and operational legacy is for increased employment for the local area. However, there are preliminary impact assessments to the potential employment loss to DA Hall from infeasibility of the Moyeness' development which have not been accounted.	ARTC to provide more accurate indication of employment legacy to the local area and considered and assessed as part of the draft EIS with respect to the impact to employment from overall interruption to the DA Hall business.	<p>ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggy and poultry farm. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 provides a description of local employment benefits and aspirational employment targets. Appendix X: Social Impact Assessment, Section 7.4.9 provides an updated description of Project legacy benefits.</p>	<p>Appendix X: Social Impact Assessment Section 7.4.9 Section 8.3.1 Section 8.6.1</p>
193	193.0104	Community Group	Social Impact Assessment	Workforce and employment	Labour and skills availability - DA Hall are current experiencing labour shortages to cope with current operations. Currently, the business is operating with 63 direct FTE's less than needed. This has been exacerbated by COVID. DA Hall have been actively participating in the Regional Workforce Management program and has joined forces with Egg Farmers of Australia and other industry bodies including the National Farmers Federation to work towards solutions with the QLD Government and DAWE.	nil.	<p>The employment of local people is a key goal for the Project so the benefits of wages will extend to local and non-local residents. The potential for labour draw has been identified in revised draft EIS Appendix X: Social Impact Assessment, Section 7.2.2 and management measures addressing potential labour draw are detailed in Section 8.3.7.</p> <p>Appendix X: Social Impact Assessment, Section 8.3 notes that there may be a draw of existing staff or tradespeople away from some businesses. Some of the types of trades required (e.g. welders, concreters) may also be in demand by local residents and farmers.</p> <p>ARTC has established the Inland Rail Skills Academy (Appendix X: Social Impact Assessment, Section 8.3) to increase the availability of suitably qualified local employees to reduce the drawdown on local labour. The workforce will also include specialist workers with skills and experience which aren't available locally.</p> <p>Although Project recruitment has not commenced, the Skills Academy has delivered preliminary training programs for local people to develop skills relevant to local industries including agriculture including (Section 8.3.2 of Appendix X: Social Impact Assessment):</p> <ul style="list-style-type: none"> ▶ Skills training for local residents focusing on transferrable agricultural skills held in December 2020 (Goondiwindi) ▶ Skills training for local Indigenous residents held in 2020-2022 ▶ Various initiatives for local school students to raise awareness of both STEM-based and trade careers available on Inland Rail held in 2020-2022 <p>Appendix X: Social Impact Assessment, Section 8.3 has been updated to reflect the Project's most recent skills development initiatives.</p>	<p>Appendix X: Social Impact Assessment Section 7.2.2 Section 8.3 Section 8.3.2 Section 8.3.7</p>
193	193.0105	Community Group	Social Impact Assessment	Workforce and employment	The labour demand for the Inland Rail project will create direct competition for local labour with DA Hall. Mitigation strategies discussed later are inadequate and fail to state how labour competition and further impact to local businesses and industries will be avoided. Strategies simply seek to monitor the impact after the fact before adjusting strategies. Labour source is likely to be drawn from Toowoomba region – this strategy placing additional pressure on the significant labour shortage in agriculture and draws from other local employment opportunities with local businesses.	The draft EIS needs to further consider and reassess the impact of COVID on the labour force availability. The absence of overseas workers has significantly reduced the labour pool for agriculture and seasonal work. Government economic stimulus packages are focused on the manufacturing and construction industries for job creation. Therefore the job availability as discussed in the draft EIS relating to the construction industry may not be available.	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 5.4.6 described the effects of COVID-19 on labour availability. With time, issues such as border closures and travel restrictions are no longer relevant, and international migration and inter-state migration of workers has increased.</p> <p>Appendix X: Social Impact Assessment, Section 7.2.1 notes that consultation with council and business community indicated there is a skilled workforce available as a result of workforce participation in other major infrastructure Projects in the region (including construction of the gasfields in the Western Downs and the Toowoomba Bypass).</p> <p>The potential for labour draw has been identified in Appendix X: Social Impact Assessment, Section 7.2.2 and management measures addressing potential labour draw are detailed in Section 8.3.7.</p> <p>ARTC is working with Construction Skills Queensland to identify skills and labour shortages, noting that the availability of labour may change as the result of changes to economic conditions during the COVID-19 pandemic. ARTC notes that updated analysis of the likely availability of construction labour from the SIA study area will be required prior to construction to enable the refinement of local and regional recruitment and training strategies (see Section 7.2 of Appendix X: Social Impact Assessment).</p>	<p>Appendix X: Social Impact Assessment Section 5.4.6 Section 7.2 Section 7.2.1 Section 7.2.2 Section 8.3.7</p>
193	193.0106	Community Group	Social Impact Assessment	Workforce and employment	The draft EIS needs to further consider and reassess the impact of COVID on the labour force availability. The absence of overseas workers has significantly reduced the labour pool for agriculture and seasonal work. Government economic stimulus packages are focused on the manufacturing and construction industries for job creation. Therefore the job availability as discussed in the draft EIS relating to the construction industry may not be available.	nil.	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 5.4.6 described the effects of COVID-19 on labour availability. With time, issues such as border closures and travel restrictions are no longer relevant, and international migration and inter-state migration of workers has increased.</p> <p>Appendix X: Social Impact Assessment, Section 7.2.1 notes that consultation with council and business community indicated there is a skilled workforce available as a result of workforce participation in other major infrastructure Projects in the region (including construction of the gasfields in the Western Downs and the Toowoomba Bypass).</p> <p>The potential for labour draw has been identified in Appendix X: Social Impact Assessment, Section 7.2.2 and management measures addressing potential labour draw are detailed in Section 8.3.7.</p> <p>ARTC is working with Construction Skills Queensland to identify skills and labour shortages, noting that the availability of labour may change as the result of changes to economic conditions during the COVID-19 pandemic. ARTC notes that updated analysis of the likely availability of construction labour from the SIA study area will be required prior to construction to enable the refinement of local and regional recruitment and training strategies (see Section 7.2 of Appendix X: Social Impact Assessment).</p>	<p>Appendix X: Social Impact Assessment Section 5.4.6 Section 7.2 Section 7.2.1 Section 7.2.2 Section 8.3.7</p>
193	193.0107	Community Group	Social Impact Assessment	Workforce accommodation village	Impact: There will be an unconsidered cumulative impact to these poultry business operations, the local community, and local road network with the addition of 300 workers travelling on the road and in the area. The construction phase of the accommodation development will present further impact. Large numbers of additional people in the district will increase the risk of unauthorised access to the poultry properties and breach biosecurity measures with potential for spread of aviary diseases, and breach COVID management plans. Theft is also of concern.	nil.	<p>The proposed site for a non-resident workforce accommodation facility in Turallin is not being pursued in the revised draft EIS. The Contractor is currently undertaking due diligence to identify a site in the Millmerran area, and will consult with TRC and the Millmerran community when this has progressed. An Accommodation Management Plan (described in revised draft EIS Appendix X: Social Impact Assessment, Section 8.4.4) will be prepared for the Project in consultation with TRC and other stakeholders.</p>	<p>Appendix X: Social Impact Assessment Section 8.4.4</p>
193	193.0108	Community Group	Social Impact Assessment	Workforce and employment	Construction phase. DA Hall want to see details of the mitigation measures for avoiding drawdown on agricultural labour workforce as a result of the local employment policies. The measure for ARTC monitoring the workforce and "consulting with business" regarding any pressure on local labour availability is not avoidance. The mitigation strategy is to refine the project's recruitment and training strategies after the fact. This is an inadequate description of these strategies in the first instance and mitigation measures to provide confidence and assurance to the local agricultural industry that labour drawdown will not occur and will be addressed before the fact.	ARTC to consult directly with DA Hall in the construction phase as a significant employer in the local area and business directly affected by labour competition. KPI and monitoring measures to be agreed and put in place to assess the impact of the ARTC project on local employment and directly to DA Hall.	<p>ARTC has revised the Project's design to avoid the Doug Hall (Moyness) piggy and poultry farm. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts on farm infrastructure and operations.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 provides a description of local employment benefits and aspirational employment targets. Appendix X: Social Impact Assessment, Section 7.4.9 provides an updated description of Project legacy benefits.</p>	<p>Appendix X: Social Impact Assessment Section 7.4.9 Section 8.3.1 Section 8.6.1</p>
193	193.0109	Community Group	Social Impact Assessment	Workforce and employment	Employment opportunities. The project is aligned to avoid impacts on the operation of the Commodore Mine, a major local employer. There is no mention of avoiding impacts to other major local employers – specifically DA Hall who have repeatedly expressed impacts directly to employment. There is no mention of mitigation strategies to avoid draw down on existing local labour workforces in agriculture. Community wellbeing. The project has caused enormous stress to DA Hall business owners, management, and staff over the period of project consultation. The measures to address residual impacts on p 15-140 disregard the source of the stress and impacts which are directly associated with landholder dealings with ARTC and contempt for respect. It also states that impacts will only be 'considered' and not addressed.	DA Hall should be considered as a major employer and as such the potential for job loss and local employment and local economy considered as a result of impact to the business.	<p>The reference design has been refined to minimise the need for land acquisition within the Doug Hall poultry farm property, and to avoid direct impacts on the farm's infrastructure. Revised draft EIS Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts.</p> <p>This is expected to have greatly reduced employees' anxiety and stress. ARTC also supports provision of mental health services which are available to local residents and employees who are affected by stress and anxiety (see Appendix X: Social Impact Assessment, Section 8.5.3).</p>	<p>Appendix X: Social Impact Assessment Section 8.6.1 Section 8.5.3</p>

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193	193.0110	Community Group	Social Impact Assessment	Workforce and employment	DA Hall do not understand how the assessment was undertaken and concluded that B3 and B2 risk levels is appropriate for the potential loss of 340 local jobs and significant economic loss locally resulting from an acquisition of DA Hall properties and loss of related poultry and piggery operations.	nil.	The reference design was refined during preparation of the revised draft EIS including re-alignment of the rail corridor to avoid impacts on Doug Hall and Co's poultry and piggery operations which would have affected their employment numbers, and design refinements to avoid impacts on feedlot infrastructure. Revised draft EIS Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts.	Appendix X: Social Impact Assessment Section 8.6.1
193	193.0111	Community Group	Social Impact Assessment	Mitigation measures	The Social Impact Management Plan lists project management actions but fails demonstrate mitigation strategies for issues to avoid and minimise impact. Ch 22 Environmental Management Plan fails to document the Social Impact Management Plan a preconstruction, construction and operation plan with mitigation strategies.	nil.	Revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing all identified impacts, including community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The SIA including SIMP have been updated to reflect submissions to the EIS and stakeholder engagement outcomes since the draft EIS was submitted. Chapter 24: Draft Outline Environmental Management Plan includes reference to the SIMP but does not duplicate its contents.	Appendix X: Social Impact Assessment Chapter 24: Draft Outline Environmental Management Plan
193	193.0112	Community Group	Social Impact Assessment	Workforce and employment	Labour source is likely to be drawn from Toowoomba region – this strategy placing additional pressure on the significant labour shortage in agriculture and draws from other local employment opportunities with local businesses.	nil.	The employment of local people is a key goal for the Project so the benefits of wages will extend to local and nonlocal residents. The potential for labour draw has been identified in revised draft EIS Appendix X: Social Impact Assessment, Section 7.2.2 and management measures addressing potential labour draw are detailed in Section 8.3.7. Appendix X: Social Impact Assessment, Section 8.3 notes that there may be a draw of existing staff or tradespeople away from some businesses. Some of the types of trades required (e.g. welders, concreters) may also be in demand by local residents and farmers. ARTC has established the Inland Rail Skills Academy (Appendix X: Social Impact Assessment, Section 8.3.2) to increase the availability of suitably qualified local employees to reduce the drawdown on local labour. The workforce will also include specialist workers with skills and experience which aren't available locally. Although Project recruitment has not commenced, the Skills Academy has delivered preliminary training programs for local people to develop skills relevant to local industries including agriculture including: <ul style="list-style-type: none"> ▶ Skills training for local residents focusing on transferrable agricultural skills held in December 2020 (Goondiwindi) ▶ Skills training for local Indigenous residents held in 2020-2022 ▶ Various initiatives for local school students to raise awareness of both STEM-based and trade careers available on Inland Rail held in 2020-2022 Appendix X: Social Impact Assessment, Section 8.3 has been updated to reflect the Project's most recent skills development initiatives.	Appendix X: Social Impact Assessment Section 7.2.2 Section 8.3 Section 8.3.2 Section 8.3.7
193	193.0113		Economics		The dissecting of the current operations on the Moyeness and DA Hall properties would increase the cost on the movement of birds between sheds and farms.	nil.	An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS. In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being: <ul style="list-style-type: none"> ▶ Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Chapter 20: Traffic, Transport and Access Section 20.5). This is particularly important for: <ul style="list-style-type: none"> ▶ Community members travelling to the Millmerran Waste Management Facility. ▶ Workers travelling to the Millmerran Power Station, the piggery on Lindenmayer Road and landowners travelling within their community (home and local townships). ▶ Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. ▶ Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) ▶ The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. ▶ Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> ▶ Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. ▶ Avoids direct impacts to future planned infrastructure. ▶ The access road for the piggery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report. As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.	Chapter 14: Flooding and Geomorphology Section 14.9.1 Chapter 17: Social Chapter 18: Economics Section 18.3 Section 18.9.1 Chapter 20: Traffic, Transport and Access Section 20.5 Appendix B3: Changes to Reference Design since Draft EIS Appendix E: Consultation Report Section 5.1 Section 5.12 Section 5.14 Appendix Y: Economic Impact Assessment Section 5.5
193	193.0114	Community Group	Flooding		Access to the poultry during increased impact from flooding events has been addressed in Section 12 relating to surface water and hydrology. In the 2010 flood, the Gore Highway was cut for four days, limiting access to the Diamond Layer Farm and freight access to market. The Inland Rail draft EIS indicates and extended timing of inundation of the Gore Highway at Pampas which will increase impacts of restricted access to market and supply of services. There is an unknown impact to access of Diamond Layer Farm at Yandilla, however Dr Markar identifies that the ARTC models under report the surveyed flood levels.	nil.	Operational flood impacts on State-controlled Roads in the Condamine River floodplain have been described in Chapter 14: Flood and Geomorphology, Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Sections 7.5.3. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3
193	193.0115	Community Group	Traffic and Transport		The route alignment through the DA Hall properties would interrupt current traffic movement around/between business activities. Impacts including daily refrigerated truck transport direct from the processing depot to markets; operation and coordination of production and processing; and transport access to production and processing operations.	nil.	The revised reference design has updated the alignment near Millmerran and no longer impacts the poultry and piggery operations from a severance or road network perspective. Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. However, during the property acquisition process, ARTC will seek to secure agreement with affected landowners, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties. The agreements may include: <ul style="list-style-type: none"> ▶ measures to minimise property impacts, including on agricultural operations ▶ specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible ▶ measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities ▶ required adjustments to affected structures. Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts. However, in the case of a privately owned road, consultation will occur regarding restoring the privately owned road or access to at a minimum, it's pre-Project condition.	Appendix AA: Traffic Impact Assessment Section 5.6
193	193.0116		Economics		See Attachment to submission: "Impact Assessment of Proposal Inland Rail on DA Hall and Co's Operation Located at Yandilla via Millmerran QLD 4352" prepared by Taylor and Byrne.	nil.	An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS. In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being: <ul style="list-style-type: none"> ▶ Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Chapter 20: Traffic, Transport and Access Section 20.5). This is particularly important for: <ul style="list-style-type: none"> ▶ Community members travelling to the Millmerran Waste Management Facility. ▶ Workers travelling to the Millmerran Power Station, the piggery on Lindenmayer Road and landowners travelling within their community (home and local townships). ▶ Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. ▶ Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) ▶ The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. ▶ Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> ▶ Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. ▶ Avoids direct impacts to future planned infrastructure. ▶ The access road for the piggery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report. As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Chapter 17: Social Chapter 18: Economics Section 18.3 Section 18.9.1 Chapter 20: Traffic, Transport and Access Section 20.5 Appendix B3: Changes to Reference Design since Draft EIS Appendix E: Consultation Report Section 5.1 Section 5.12 Section 5.14 Appendix Y: Economic Impact Assessment Section 5.5

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193	193.0117		Economics		The 2019 impact assessment considers the impact of the Inland Rail under various scenarios, including existing operations, the infeasibility of the 'Moyeness' development and flow on impact, the cost of shifting development to a new location at 'Avondale' and flow on impact. The economic impact assessment quantifies in terms of output, income, employment, and the value added economic impact for construction and operations for DA Hall & Co, and flow on impact to the Toowoomba LGA.	nil.	<p>An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS.</p> <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). 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Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. 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Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 17: Social</p> <p>Chapter 18: Economics Section 18.3</p> <p>Section 18.9.1</p> <p>Chapter 20: Traffic, Transport and Access Section 20.5</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.12</p> <p>Section 5.14</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0118		Economics		DA Hall describe projected impact scenarios on direct economic impact to the business and the region. This includes impacts to jobs.	nil.	<p>An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS.</p> <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being:</p> <ul style="list-style-type: none"> Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Chapter 20: Traffic, Transport and Access Section 20.5). This is particularly important for: <ul style="list-style-type: none"> Community members travelling to the Millmerran Waste Management Facility. Workers travelling to the Millmerran Power Station, the piggery on Lindenmayer Road and landowners travelling within their community (home and local townships). 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For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. The access road for the piggery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. <p>The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 17: Social</p> <p>Chapter 18: Economics Section 18.3</p> <p>Section 18.9.1</p> <p>Chapter 20: Traffic, Transport and Access Section 20.5</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.12</p> <p>Section 5.14</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0119		Economics		TOR 5.1 and 11.21 (e) states that economic impacts must be identified and assessed. The draft EIS and supporting economic impact assessment technical report simply describes that there will be economic impacts to agriculture and fails to provide an assessment of these costs in real terms. It goes to great lengths however to describe the economic benefit of the Inland Rail project, which fail to relate to the local project area. The direct and indirect economic impact of the Inland Rail to DA Hall business and operations and its local and regional significance is not represented. Stating that impacts will be determined during detail design fails to meet any accountability and transparency of the cost and impact for the local community or facilitates an assessment process conducted by the Coordinator General.	The draft EIS is to include a full and updated cost analysis of the project delivery, economic impact to local industries and communities.	<p>An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. 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For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. The access road for the piggery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. <p>The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 17: Social</p> <p>Chapter 18: Economics Section 18.3</p> <p>Section 18.9.1</p> <p>Chapter 20: Traffic, Transport and Access Section 20.5</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.12</p> <p>Section 5.14</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>

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193	193.0120		Economics		TOR 5.3 The current level of detail does not provide a full cost scenario for the project, and at a scale relevant to the local area, resulting in likely cumulative economic impacts that are not accounted for. Due to the scale and extent of the impact to DA Hall to the local economy, it would be appropriate for a more detailed assessment of economic impacts to be available as part of the draft EIS assessment process for proper consideration.	The draft EIS is to include a full and updated cost analysis of the project delivery, economic impact to local industries and communities. The draft EIS is to include an updated assessment of route alignment options based on revised costs.	<p>An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS.</p> <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being:</p> <ul style="list-style-type: none"> Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Chapter 20: Traffic, Transport and Access Section 20.5). This is particularly important for: <ul style="list-style-type: none"> Community members travelling to the Millmerran Waste Management Facility. Workers travelling to the Millmerran Power Station, the piggyery on Lindenmayer Road and landowners travelling within their community (home and local townships). Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. The access road for the piggyery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. <p>The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggyery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 17: Social Chapter 18: Economics Section 18.3 Section 18.9.1</p> <p>Chapter 20: Traffic, Transport and Access Section 20.5</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report Section 5.1 Section 5.12 Section 5.14</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0121		Economics		TOR 11.21 The draft EIS has failed to acknowledge local and regional impacts in its description of the project benefits.	nil.	<p>As a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment. The full suite of potential benefits associated with the Inland Rail Program can only be realised once this Project and all other Inland Rail projects are complete and operational. The EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams: providing competitive freight transport and supporting regional and local business. These are summarised in Section 5.2 of the Executive Summary. The revised draft EIS also summarises the broader program benefits identified in Section 5.1 of the Executive Summary.</p>	<p>Chapter 18: Economics Section 18.7</p>
193	193.0122		Economics		TOR 11.21 (f) has not been met, where employment opportunities have not been substantiated and will have a net negative impact to the region due to draw down on already significant labour shortages and loss of jobs due to impact to DA Hall business and operations.	nil.	<p>ARTC acknowledges the construction labour supply required for the Project includes technical and specialised skill sets such as engineering capability. The nature of these jobs is quite mobile, where professionals tend to travel to Project sites from major urban centres, interstate and internationally, where required. As such, labour market statistics for this supply group are summarised at a national and State level. More general labour market statistics are summarised in Chapter 18: Economics, Section 5.2 of the revised draft EIS.</p> <p>ARTC has recently updated the EIS economic modelling to reflect current labour market conditions. If labour market conditions at the national and State level remain in the recent range, the Project's Construction Works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. However, the economic assessment indicates in Section 6.4 that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment.</p> <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises. ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community including DA Hall business and operations including a reduction in adverse economic and social impacts by:</p> <ul style="list-style-type: none"> Creating greater separation between the DA Hall business infrastructure, thereby reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks Avoiding direct impacts to future planned infrastructure Avoiding potential loss of employees Avoiding future impacts to associated supply chains that support DA Hall business and related operations. <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding the changes in the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 18: Economics Section 18.4 Section 18.8.3 Section 18.9.1</p>
193	193.0123		Economics		The economic cost of impact to agriculture production does not include impact/loss to DA Hall piggyery and poultry operations, nor considers the cost relating to land acquisition and compensation, agriculture operations, transport and property access, services, water resources, flood impacts, production loss, supply chain disruption.	Full assessment of economic impact and cost to agriculture: - Loss of agricultural land, acquisition of land and loss of production and value add- Acquisition of land used for intensive livestock operations and loss of production and value add- Temporary and permanent disruption to access and infrastructure- Temporary and permanent disruption to stock and product movement- Improvements in supply chain efficiency and impacts to supply chain; and- Flood inundation of direct and indirectly impacted land use and supply chains, accounting for mitigation measures and cumulative impacts	<p>An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Border to Gowrie final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. Refer to Chapter 18: Economics and Appendix Y: Economic Impact Assessment. These outcomes have been summarised in the revised draft EIS.</p> <p>In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms (Appendix B3: Changes to Reference Design since Draft EIS). ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being:</p> <ul style="list-style-type: none"> Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Chapter 20: Traffic, Transport and Access Section 20.5). This is particularly important for: <ul style="list-style-type: none"> Community members travelling to the Millmerran Waste Management Facility. Workers travelling to the Millmerran Power Station, the piggyery on Lindenmayer Road and landowners travelling within their community (home and local townships). Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.8.1 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. The access road for the piggyery infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. <p>The revised Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggyery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. Refer to Appendix E: Consultation Report.</p> <p>As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the Detailed Design stage.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.8.1</p> <p>Chapter 17: Social Chapter 18: Economics Section 18.3 Section 18.9.1</p> <p>Chapter 20: Traffic, Transport and Access Section 20.5</p> <p>Appendix B3: Changes to Reference Design since Draft EIS</p> <p>Appendix E: Consultation Report Section 5.1 Section 5.12 Section 5.14</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0124		Economics		Preliminary economic impact assessments, including employment impacts, have been conducted for DA Hall and known to ARTC, which have not been acknowledged in the draft EIS.	nil.	<p>In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates, including to the calculated potential loss for rural communities. Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in the Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>These alignment changes, such as the Millmerran alternative alignment, now avoid or minimise potential impacts on DA Hall and Co infrastructure and their piggyery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. Refer to Appendix E: Consultation Report for specific details. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties (e.g. severance and loss of productive land) Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. 	<p>Chapter 18: Economics Section 18.9.1 Section 18.12</p> <p>Appendix E: Consultation Report</p> <p>Appendix Y: Economic Impact Assessment Section 5.5</p>
193	193.0125		Economics		Business case 2015: states that detailed designs are needed to better understand engineering, property and stakeholder requirements. This document states the benefit and cost estimates need to be refined, however remains the only economic assessment reference document since 2015. In 2009, the estimated cost was \$2.8 billion to build, the 2015 Base Case states \$9.9 billion, and an announcement in December 2020 the government will now invest \$14.5 billion to ARTC. By referring to the Base Case, the current cost estimates are not accounted for. As the detailed designs and mitigation measures are not yet completed, the projected cost is not substantiated. The Base Case also nominates the Port of Brisbane connection to cost and additional \$2.5 billion and is required to realise the project outcome.	nil.	<p>In response to public notification, ARTC has revised the Economic Impact Assessment. Details of the revised CAPEX costs can be found in Appendix C of Appendix Y: Economic Impact Assessment.</p> <p>Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government, costs have not been included in Appendix Y: Impact Assessment.</p>	<p>Chapter 18: Economics Section 18.9</p> <p>Appendix Y: Economic Impact Assessment Appendix C</p>
193	193.0126		Economics		Given the lack of economic impact data and costs, it is difficult to conclude that an effective, full and transparent cost benefit analysis has been conducted as part of the route options analysis for Border to Gowrie.	The draft EIS should include a complete and updated cost benefit analysis of economic impact compared to other route alignment options, including cost to agriculture, land acquisition, impact to operations, mitigation measures and flooding.	<p>ARTC notes the purpose of the Investment Case (Inland Rail Program Business Case 2015) was to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution. Once the financial (i.e. investment) decision had been made to proceed with the Project, the statutory approval process commenced. Inland Rail, as a State Significant Project in Queensland, is required to respond to the Terms of Reference (ToR) with an Environmental Impact Assessment (EIS) as required under the <i>State Development and Public Organisation Act 1971</i> (Qld).</p> <p>The purpose of the EIS process is to inform decision-makers and the public of the environmental consequences of implementing a Project. The EIS identifies, predicts, and analyses impacts on the physical environment, as well as social, cultural, economic and health impacts during construction and operation of the Project. The economic analysis provided in the EIS response is tailored to consider these impacts during construction and operation with appropriate mitigation measures.</p> <p>Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in Appendix Y: Economic Impact Assessment.</p>	<p>Chapter 18: Economics Section 18.3 Section 18.7</p> <p>Appendix Y: Economic Impact Assessment Section 2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0127	Community Group	Project scope		Note that DA Hall submitted previous correspondence to Hon Anthony Albanese and Hon Catherine King from local businesses along the B2G alignment in response to the Senate Inquiry (Appendix 2 - Correspondence). Issues raised in correspondence relate to concerns crossing the Condamine River floodplain, impact to businesses and employees.	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure, Section 8.6.1) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p> <p>This is expected to have greatly reduced employees' anxiety and stress. ARTC also supports provision of mental health services which are available to local residents and employees who are affected by stress and anxiety.</p> <p>Preliminary estimates of the workforce requirements for the Inland Rail Border to Gowrie Project are provided in Chapter 5: Project Description, Section 5.6.3 for Construction activities and Section 5.8.2 for Operation.</p>	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 5: Project Description Section 5.6.3 Section 5.8.2 Chapter 8: Land Use and Tenure Section 8.6.1
193	193.0128	Community Group	Project scope		Note DA Hall provided a copy of their submission to the Senate Inquiry submission (Appendix 3 - reference material).	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure, Section 8.6.1) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p> <p>This is expected to have greatly reduced employees' anxiety and stress. ARTC also supports provision of mental health services which are available to local residents and employees who are affected by stress and anxiety.</p> <p>Preliminary estimates of the workforce requirements for Inland Rail Border to Gowrie Project are provided in Chapter 5: Project Description, Section 5.6.3 for Construction activities and Section 5.8.2 for Operation.</p>	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 5: Project Description Section 5.6.3 Section 5.8.2 Chapter 8: Land Use and Tenure Section 8.6.1
193	193.0129	Community Group	Project scope		Note DA Hall provided previous correspondence between DA Hall and procured specialists and ARTC (Appendix 2 - Correspondence).	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure, Section 8.6.1) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p> <p>This is expected to have greatly reduced employees' anxiety and stress. ARTC also supports provision of mental health services which are available to local residents and employees who are affected by stress and anxiety.</p> <p>Preliminary estimates of the workforce requirements for Inland Rail Border to Gowrie Project are provided in Chapter 5: Project Description, Section 5.6.3 for Construction activities and Section 5.8.2 for Operation.</p>	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 5: Project Description Section 5.6.3 Section 5.8.2 Chapter 8: Land Use and Tenure Section 8.6.1
193	193.0130	Community Group	Project scope		Note DA Hall submitted additional reference material (Appendix 3 - Reference material) including ARTC presentation to DA Hall on route alignment options, extract from Senate hearing, aerial imagery of DA Hall property impacted by flooding.	nil.	<p>The Millmerran Alternative Alignment is described in Chapter 2: Project Rationale, Section 2.10.9 and Figure 2-25.</p> <p>Advantages of the revised reference design include:</p> <ul style="list-style-type: none"> Completely avoids severing highly intensive animal and agricultural industries, including avoidance of severing Class A, Class B and important agricultural areas (discussed in further detail in Chapter 8: Land Use and Tenure, Section 8.6.1) Removal of two active crossings, increasing safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts by creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks, and avoids direct impacts to future planned infrastructure The access road on Lindenmayer Road no longer has any direct impacts to associated traffic for future operations <p>Consultation with impacted stakeholders will continue to take place through the Detailed Design stage.</p> <p>This is expected to have greatly reduced employees' anxiety and stress. ARTC also supports provision of mental health services which are available to local residents and employees who are affected by stress and anxiety.</p> <p>Preliminary estimates of the workforce requirements for Inland Rail Border to Gowrie Project are provided in Chapter 5: Project Description, Section 5.6.3 for Construction activities and Section 5.8.2 for Operation.</p>	Chapter 2: Project Rationale Section 2.10.9 Figure 2-25 Chapter 5: Project Description Section 5.6.3 Section 5.8.2 Chapter 8: Land Use and Tenure Section 8.6.1
193	193.0131		Economics		TOR requirement 5.1 and 11.21(e) not adequately addressed. DA Hall to supply independent assessment of the economic impact.	<p>DA Hall seek the CG to:</p> <ul style="list-style-type: none"> accept the economic impact report into the impacts on DA Hall as supplementary to our EIS submission; seek additional information from ARTC on the economic impact of the proposed route, including for agricultural industry impacts with "an assessment of the composition by lot and commodity"; and release this assessment and other information as a revised draft EIS for public consultation. 	<p>In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates, including to the calculated potential loss for rural communities. Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in the Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties (e.g. severance and loss of productive land) Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. <p>In relation to the independent economic assessment, the Coordinator-General will decide whether to accept the report as part of the DA Hall submission on the draft EIS.</p> <p>An assessment of the economic impacts per lot and commodity is not in the scope of the EIS as per Section 5.1 and 11.141 of the ToR. The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, publicly available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. These outcomes have been summarised in the EIS.</p> <p>The revised draft EIS will be released for a second round of public consultation in accordance with the requirements of the State Development and Public Works Organisation Act 1971 (Qld).</p>	Chapter 18: Economics Section 18.9.1 Section 18.9.4 Section 18.12 Appendix Y: Economic Impact Assessment Section 5.5
193.0000	193.0131		Economics		TOR requirement 5.1 and 11.21(e) not adequately addressed. DA Hall to supply independent assessment of the economic impact.	<p>DA Hall seek the CG to:</p> <ul style="list-style-type: none"> accept the economic impact report into the impacts on DA Hall as supplementary to our EIS submission; seek additional information from ARTC on the economic impact of the proposed route, including for agricultural industry impacts with "an assessment of the composition by lot and commodity"; and release this assessment and other information as a revised draft EIS for public consultation. 	<p>In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates, including to the calculated potential loss for rural communities. Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in the Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties (e.g. severance and loss of productive land) Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. <p>In relation to the independent economic assessment, the Coordinator-General will decide whether to accept the report as part of the DA Hall submission on the draft EIS.</p> <p>An assessment of the economic impacts per lot and commodity is not in the scope of the EIS as per Section 5.1 and 11.141 of the ToR. The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, publicly available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. These outcomes have been summarised in the EIS.</p> <p>The revised draft EIS will be released for a second round of public consultation in accordance with the requirements of the State Development and Public Works Organisation Act 1971 (Qld).</p>	Chapter 18: Economics Section 18.9.1 Section 18.9.4 Section 18.12 Appendix Y: Economic Impact Assessment Section 5.5
194	194.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
194	194.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
194	194.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Participation Principles (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.1.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.3</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Section 6.4</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
195	195.0001	Private	Flooding - Condamine River		The work of the Independent Panel of Experts for Flood Studies is directly related to the draft EIS and specifically the Condamine River floodplain Section of the proposed Border to Gowrie route. It is due until the end of 2021. In such circumstances, the draft EIS should be withdrawn.	<ol style="list-style-type: none"> Ensure the Panel's advice on the extent, interpretation, assumptions and application of existing flood modelling, and best practice for design of waterway structures in a floodplain environment" is incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain; to consider and comment. The Coordinator-General should commit to awaiting the release of the Panel's advice before making a determination on the draft EIS, and prior to doing so invite stakeholder comment on the Panel's findings. 	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.6</p> <p>Section 8.6</p>
195	195.0002	Private	Flooding - Condamine River		The Senate Inquiry is not due to report until 13 May 2021, which is almost a month after the deadline for submissions on the draft EIS. As the Senate Committee's investigation is directly related to the draft EIS and specifically the Condamine River floodplain Section of the proposed Border to Gowrie route, as the Committee held hearings in Millmerran, the CG should ensure that the findings and recommendations are incorporated into the draft EIS.	<ol style="list-style-type: none"> The Coordinator-General should invite ARTC to withdraw the draft EIS and ensure the Senate Committee's findings and recommendations are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain ; to consider and comment. The Coordinator-General will extending the submission date on the draft EIS to beyond the reporting date of the Senate Committee (13 May) to allow stakeholders to consider that before making comments on the draft EIS. The Coordinator-General should consider the Senate Committee's findings and recommendations, and the comments on it by stakeholders, as part of her assessment of the draft EIS. 	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.6</p> <p>Section 8.6</p>
195	195.0003	Private	Project scope		The Table 23.5 of Main Project Aspects To Be Developed from Chapter 23 of the EIS document demonstrates the incomplete nature of the EIS in its current form.	The Coordinator-General should invite ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landowners on the Condamine River floodplain; to consider and comment on Project footprint including areas to be acquired, final level crossing design, utilities, cross drain age configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation.	<p>As described in the revised draft Chapter 1: Introduction, Section 1.5, between 23 January 2021 and 4 May 2021, the draft EIS was made available for public comment under Section 33 of the SDPWO Act and public submissions were received. Terms of reference compliance has been updated for the revised draft EIS in Appendix A2: Terms of Reference - Cross Reference Table. On 4 January 2022 the Coordinator-General requested additional information under Section 34B(2) of the SDPWO Act. The Office of Coordinator-General additional information requirements and the proponent's (ARTC) responses to the public submissions received comprise the basis of assessment for the revised draft EIS.</p> <p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>The following steps in the coordinated Project process remain to be completed:</p> <ul style="list-style-type: none"> Once the Office of Coordinator-General has deemed that the additional information requirements have been satisfactorily addressed, the revised draft EIS will be made available for public comment. Submissions can be made to the Coordinator-General to be considered during evaluation of the revised draft EIS. The Coordinator-General will evaluate the revised draft EIS and may accept it as the final EIS. If accepted as final, the Coordinator-General prepares a report (i.e. Coordinator-General's evaluation report) on the final EIS consistent with the requirements of the SDPWO Act. <p>The EIS identifies and describes the environmental values that must be protected as specified in Section 9 of the Environmental Protection Act 1994 (Qld) (EP Act), the Environmental Protection Regulation 2019 (Qld), environmental protection policies, water resource plans, State Planning Policy, relevant guidelines and the EPBC Act. The relevant controlling provision for the Project is listed threatened species and communities (Sections 18 and 18A) (reference number EPBC 2017/7944). Refer Appendix O: Matters of National Environmental Significance Report for further detail.</p> <p>Chapter 3: Legislation and Project Approvals Process summarises the key Commonwealth and State legislation, and local government plans and policies and how they relate to approvals necessary for the planning, Construction Works and Operations stages of the Project. Chapter 3: Legislation and Project Approvals Process also tables the potential post-EIS approvals in Table 3-5, providing the triggers for each approval, the relevant administering authority and whether potential exemptions are available to the Project and ARTC. Approval and permit requirements may vary depending on the final design and construction methodology, and future changes in statutory requirements prior to the Project's implementation.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>As described in Chapter 25: Conclusions, Section 25.8, in recognition of the current status of design, the assessments completed for the revised draft EIS have adopted a conservative, worst-case approach, where possible, to identifying the potential impacts of the Project. This approach was adopted to ensure that future modifications and refinements to the revised reference design do not result in impacts greater than those predicted at this stage.</p> <p>It is expected that construction and operation of the Project will be within the parameters and scale of the impacts approved through the EIS. Changes to the Project that are beyond the assessment would need to progress through a request for Project change process.</p> <p>The revised draft EIS has been updated to address the Terms of Reference as outlined in Appendix A2: Terms of Reference Compliance Table.</p>	<p>Chapter 1: Introduction</p> <p>Section 1.5</p> <p>Chapter 3: Legislation and Project Approvals Process</p> <p>Table 3-5</p> <p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Chapter 25: Conclusions</p> <p>Appendix A2: Terms of Reference - Cross Reference Table</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
195	195.0004	Private	Outline EMP		The draft EIS submitted by ARTC does not comply with the Terms of Reference (TOR) set out by the Coordinator-General. Specifically, it does not sufficiently address detail around avoidance or mitigation measures as specified in Section 6.6 in the TOR.	nil.	<p>Chapter 23: Cumulative Impacts addressed TOR 6.6. Chapter 23: Cumulative Impacts includes an assessment of each environmental matter relevant to the EIS. This assessment includes the nature, magnitude and duration of the potential cumulative impacts of the Project and the proposed mitigation measures.</p> <p>Chapter 8 to Chapter 22 of the revised draft EIS address TOR 6.6 as these reports include assessment of the nature, magnitude and duration of the potential direct and indirect impacts of the Project and proposed mitigation measures.</p>	<p>Chapter 8 to Chapter 23</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
195	195.0005	Private	Noise and Vibration	Operational rail noise	All residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors. The noise and vibration from the rolling stock combined with additional signals from alarm bells and train horns will impact everyone. The Brookstead State School lies within 90 to 100 m from the proposed rail corridor. No alternative solutions have been discussed with the Brookstead community for a feasible alternative with less social impacts on the school day-to-day activities. There is potential for rail noise to affect the learning environments of the Brookstead and Yelarbon State Schools. ARTC have not informed the community of the noise and vibration details that will affect them.	nil.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Sleep disturbance impacts are also discussed in Section 6.1 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. A range of feasible noise and vibration mitigations are provided in Chapter 16: Noise and Vibration, Section 16.10, and the associated technical reports Appendix V: Noise and Vibration Assessment: Construction and Road Traffic, Section 7, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the Detailed Design stage and verification of noise levels during initial operations.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
195	195.0007	Private	Stakeholder engagement		Very few residents from our local community in Brookstead participated in the survey as it was poorly advertised and promoted by ARTC. Many residents were unaware. The SIA survey does not represent views of the community members who may be impacted by the project.	SIA survey should be repeated until sufficient responses are received to represent community views.	<p>A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
195	195.0008	Private	Social Impact Assessment	Mitigation measures	No detail is provided about how negative social impacts will be minimised or mitigated and, as such, the draft EIS is incomplete according to TOR Condition 11.140.2. The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed.	nil.	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
195	195.0009	Private	Stakeholder engagement		ARTC have failed to build trust, credibility, and visibility. The social impact of this poor engagement process by ARTC has been negative, and the many representations to the Senate Inquiry into Management of Inland Rail project by ARTC and the Commonwealth government focused on concerns around poor consultation, individual and community stakeholder meetings have been requested to "suit" ARTC, rather than community y needs. The majority of meetings have been requested or conducted during day-time working hours for the convenience of ARTC, and little consideration has been taken of stakeholder availability.	<ol style="list-style-type: none"> The community consultation process needs to be undertaken again. An independent facilitator oversees the consultation process to ensure a fair process where community concerns are "heard, acknowledged, considered" and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication. The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the "Detailed Design phase" subsequent to the EIS, and this does not provide an opportunity to adequately respond to the EIS without sufficient information. This in itself is a failing of stakeholder engagement and the planning and communication process. On this basis, the draft EIS should be rejected based on the incomplete nature of information we need to effectively comment on environmental and social imp act 	<p>As outlined in Chapter 6: Stakeholder Engagement, Section and Appendix E: Consultation Report, Section 2 the consultation approach for the Project is guided by the International Association of Participation Principles (IAP2) engagement principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community engagement process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints.</p> <p>In reference to this submission, there has been ongoing consultation with the communities and local road users of the Brookstead and Pampas area during the development of the revised draft EIS, and changes to the reference design have been made in response to stakeholder input and feedback. ARTC hosted a community information sessions to discuss proposed changes to the Pampas and Brookstead road network design, which was developed in conjunction with DTMR and TRC. Community engagement has informed the reference design, with some key examples of these changes outlined in Chapter 6: Stakeholder Engagement, Section 6.5 and Section 6.6.Engagement with the communities directly impacted by the Project is ongoing, and will continue through detailed design, construction and operation.</p> <p>The reference design is an iterative process, and engagement about road and rail design is ongoing with stakeholders. As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.5</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 5.3</p> <p>Section 5.5</p>
196	196.0001	Private - Brookstead	Flora and Fauna	Koala	<ul style="list-style-type: none"> The submitter highlights that their family has owned Oak Park for 33 years and that there have always been koalas in the trees around the house, up in the scrub, along the roadside and that they have really been the koala's custodians. The submitter highlights that there have been occasions where their family have taken injured and sick koalas to vets and carers. The submitter highlights an occasion when going through the large area of remnant scrub to look for a koala, however sighted 14 koalas in the various trees; such as eucalypts and belahs, which provide a perfect habitat. The submitter expresses concern that the extent of the corridor and the gigantic structures that will be built adjacent to their property for Inland Rail, will destroy the environment, restrict koalas movements, prevent koalas from moving to and from their breeding grounds and possibly lead to extinction of Koalas in this area. The submitter highlights that recent studies by experts and local people from movements like Landcare, have found that the Inland Rail corridor will dissect the Koala's habitat for approximately 100 km in the region; severely disturbing and possibly destroying their environment. The submitter states that the extensive development of Inland Rail, will destroy the ecosystem that has sustained a thriving Koala colony which has historically always existed in the Yarranlea/Murlaggan area. The submitter states that the predicted 11 trains through the day and 9 at night in 2026, will affect the movement of koalas as most of their movement occurs at night and if their movement is limited by the railway as we know their mating calls are most frequent at night, this is another threat to the continuity of the species. 	The submitter states that rerouting the Inland Rail to another part of Queensland where it will affect fewer animals and people should be considered by the Government.	<p>Appendix O: Matters of National Environmental Significance Report of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of Appendix M: Draft Koala Management Plan (DKMP).</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Section 5: Wildlife Crossing Structures and Other Treatments in Appendix P: Fauna Connectivity Strategy provides additional information on the management and mitigation measures to ensure fauna connectivity is maintained. The strategy looks at specific listed species and proposes tailored design strategies accordingly.</p> <p>The preferred location for the proposed Project rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity.</p> <p>In response to the draft EIS public notification, ARTC has refined the Project alignment. This has resulted in a number of updates made to the revised draft EIS, including to the calculated potential loss for rural communities. Section 5.5 of the revised Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggyery, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the Detailed Design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Appendix B3: Changes to reference design since draft EIS</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 5.10</p> <p>Appendix O: Matters of National Environmental Significance Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
196	196.0002	Private - Brookstead	Flora and Fauna		The submitter states that the rural tranquility will be destroyed by the massive construction the Inland Rail will present and other forms of fauna like echidnas and the bearded earless dragon for example will find it difficult to exist in such a stressful environment and future generations will not have the same opportunities to enjoy the iconic Australian in this area	The submitter states that rerouting the Inland Rail to another part of Queensland where it will affect fewer animals and people should be considered by the Government.	Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment as the preferred concept alignment for the Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified. The base case via Wellcamp Charlton alignment formed the centrelines of a two-kilometre-wide study area to be progressed through ARTC's phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Section 2.8 and 2.9, Chapter 2: Project Rationale of the draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area. ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). As described in Section 2.8-2.10, Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Appendix E: Consultation Report Section 5.1
196	196.0003	Private - Brookstead	Flooding		The submitter states that their family often discusses about the many ways the railway will create huge problems and disruption to not only themselves and the native animals, but to other farmers along the route, especially in times of flooding.	The submitter states that rerouting the Inland Rail to another part of Queensland where it will affect fewer animals and people should be considered by the Government.	The EIS is focussed on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale, Section 2.8. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment	Chapter 2: Project Rationale Section 2.8 Section 2.9.3
197	197.0001	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project.	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
197	197.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
197	197.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
197	197.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	The consultation approach for the Project is guided by the International Association of Participation Principles (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2. ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.3. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes. Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.1. A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11. Responses to the concerns raised in this submission are outlined below. The first meeting in Millmerran: <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.6 Table 6.11 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Section 5.5 Section 6 Section 6.4
198	198.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
198	198.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
198	198.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As well as all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.8</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>
198	198.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Participation Principles (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.1.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced livability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Section 6.4</p>
199	199.0001	Private	Flooding	Increase in flows	The submitter thinks that there hasn't been enough discussions/investigations into the flow of water in all adjoining areas to the project line.	The submitter wants ARTC to speak to the older residences in the area to get accurate knowledge on the flow of water.	<p>Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.5 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.5</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.6</p> <p>Section 8.6</p>
199	199.0002	Private	General project opinion - negative		The submitter raises the issue that the existing rail line has served its purpose as its foundation does not move as a result of black soil. At the same time, the existing rail line has carted thousands of tons of wheat without going through prime agricultural land.	nil.	<p>Chapter 2: Project Rationale, Section 2.2 describes the justification of Inland Rail. Much of the infrastructure on the existing regional rail systems is old and has maintenance and renewal issues and, as such, has restrictions on axle loads and tonnages that can be transported. Poor maintenance of rail lines leads to network availability issues and speed constraints. When combined, these existing rail network constraints are resulting in an increasing reliance on freight transportation by road, thereby imposing additional maintenance and safety burdens on the affected road asset managers (Infrastructure Australia, 2015).</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.2</p>
200	200.0002	Private	General project opinion - positive		<ol style="list-style-type: none"> The rail will provide financial benefit from construction and long term benefit to enable Goondiwindi region to grow and develop new marketing opportunities and strategic freight lines. The rail will provide construction opportunities for Goondiwindi Region 	<ol style="list-style-type: none"> The contractors and subcontractors should favour local businesses in all purchasing decisions. Local labour should be hired. Goondiwindi has good training facilities that could deliver any training needed. 	<p>Appendix X: Social Impact Assessment Technical Report (Section 8.3) states "one of ARTC's primary aims is to maximise employment opportunities for residents within the SIA study area by:</p> <ul style="list-style-type: none"> Facilitating skills development opportunities to build regional capacity in construction and rail operation Building partnerships with training providers to strengthen workforce skills in the SIA study area and reduce the potential for cumulative impacts to draw labour and skills from other businesses Requiring the Contractor to employ locally, and to implement workforce training and diversity strategies". <p>Section 8.3.4 in Appendix X: Social Impact Assessment Technical Report also notes "there is also potential for cumulative demands for construction personnel for Inland Rail and other projects to cause labour shortages for businesses in the SIA study area". Appendix X: Social Impact Assessment Technical Report Section 7.5.2 states "some of the types of trades required (e.g. welders, concreters) may be in demand by local business and residents, however other trades required (e.g. those required for major civil construction, flashbutt welding and sleeper laying) are specific to major infrastructure projects.</p> <p>ARTC has established the Inland Rail Skills Academy (Appendix X: Social Impact Assessment Technical Report, Section 8.3.2) to increase the skills and capacity of the local workforce to participate in construction employment.</p> <p>ARTC partnered with Goondiwindi Regional Council to support the development of a "Local Employment Roadmap" which aims to attract skilled workers to the region. Appendix X: Social Impact Assessment Technical Report Section 8.3.4 has been updated in this regard.</p> <p>If the Project is contributing to cumulative pressures on labour availability, ARTC will engage with the Contractor to refine the Project's recruitment and training strategies (Appendix X: Social Impact Assessment Technical Report, Section 8.3.7). * As noted in Appendix X: Social Impact Assessment Technical Report (Section 7.5.3) ARTC's Australian Industry Participation Plan and Sustainable Procurement Policy have a key focus on providing local and Indigenous businesses and social enterprises with full, fair and reasonable opportunity to participate in the supply of goods and services to Inland Rail.</p> <p>Inland Rail's tender assessment criteria includes local and Indigenous participation as a key element of all construction tender assessments.</p> <p>ARTC has also commenced delivery of business capability strategies; Appendix X: Social Impact Assessment Technical Report Section 6.2 has been updated in this regard.</p> <p>As outlined in Appendix X: Social Impact Assessment Technical Report Section 8.7.3 (Table 8.14), the Contractor will be required to monitor of the number of people from the SIA Study Area that are employed in construction and the number and value of contracts with businesses located in the Goondiwindi and Toowoomba LGAs in line with targets, and report on outcomes.</p>	<p>Appendix X: Social Impact Assessment Technical Report</p> <p>Section 6.2</p> <p>Section 7.5.2</p> <p>Section 7.5.3</p> <p>Section 8.3</p> <p>Section 8.3.4</p> <p>Section 8.3.7</p> <p>Section 8.7.3</p> <p>Table 8.14</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
201	201.0001	Private - Brookstead	Land Use and Tenure	Directly impacted landowner	The submitter highlights there are inaccuracies and omissions in the draft EIS with respect to Impacted Properties in Appendix F, Impacted Community Organisations, in the draft EIS, including Emergency and Medical services in Chapter 15. Submitter states that their family trust has an interest in seven properties within the rail corridor, and additional eleven properties within 5 km of the proposed IR line. The land use category assigned to five of the seven included land parcels (2RP71738, 2RP87457, 1RP87457, 3149A341582, 1RP803554) are incorrect in the draft EIS document (Appendix F, Table F.2) Lot2RP87457; is an irrigated farm of 310.96 ha in prime agricultural land and has been incorrectly indicated in the EIS as a property of other minimal use. The incorrect classification is an error in the preparation of the draft EIS as the land classification is designated as Cropping on QLUMP website (Attachment 1) Lot1 RP87457 is a residential property situated on 2.02 ha and has been incorrectly classified as a property of other minimal use in the EIS. This error is a result of missed verification on ARTCs behalf as it is listed as Other minimal use on the QLUMP website (Attachment 1). Lot 2 RP71738, is an irrigated farm located in Pampas as indicated on the QLUMP map (Attachment 1) and has been incorrectly listed as land parcel as Transport and Communication in Appendix F, Table F.2. Lot 3149 A341582 is an irrigated farm located in Pampas as indicated on the QLUMP map (Attachment 1) and has been incorrectly listed in the draft EIS as Transport and communication in Appendix F, Table F.2 Lot3 RP803554 is an irrigated farm located in Pampas as indicated on the QLUMP map (Attachment 1) and the draft EIS document incorrectly lists this land parcel as Transport and Communication in Appendix F, Table F.2.	Submitter states to check and correct predominant land use category for all assigned properties as these are not accurate records and therefore not indicative of the impact on agricultural land and residences. Address the impact of these erroneous land use classifications on information and decisions made in other sections of the draft EIS.	The revised draft EIS Chapter 8: Land Use and Tenure, Section 8.4, presents updated information on the Project with regards to land-use assessment, identification and mapping existing land uses.	Chapter 8: Land Use and Tenure Section 8.4
201	201.0002	Private - Brookstead	Land Use and Tenure	Modelling	Submitter states that the process of mapping and verifying land used by ARTC, based on the Queensland Land Use Mapping Program (QLUMP) was not undertaken thoroughly, if at all, as the verification process did not detect glaring errors of misclassification on a scale of 71% for their properties alone. A rate of less than 30% accuracy for land use classification, should not be sufficient to pass the EIS process.	Submitter states to check and correct predominant land use category for all assigned properties as these are not accurate records and therefore not indicative of the impact on agricultural land and residences. Address the impact of these erroneous land use classifications on information and decisions made in other sections of the draft EIS.	Land uses are accurate to QLUMP. QLUMP is used for consistency across Queensland and local/regional boundaries. The revised draft EIS Chapter 8: Land Use and Tenure, Section 8.4, presents updated information on the Project with regards to land-use assessment, identification and mapping existing land uses.	Chapter 8: Land Use and Tenure Section 8.4
201	201.0003	Private - Brookstead	Stakeholder engagement	Directly impacted landowner	Submitter highlights that they have had numerous meetings with ARTC representatives in their residence 1RP87457 however this has not been defined as such.	nil.	ARTC notes that ongoing engagement has been undertaken with this submitter, including meetings at their property and through the SDDCCC. ARTC is not referencing individual landowner meetings in the revised draft EIS. For further details on directly impacted landowner consultation refer to Appendix E: Consultation Report, Section 4.	Appendix E: Consultation Report Section 5
201	201.0004	Private - Brookstead	Land Use and Tenure	Directly impacted landowner	Submitter states that omissions in the draft EIS may appear minor, however have far reaching implications and raise the following questions: <ul style="list-style-type: none"> How many other affected land parcels have an incorrect classification, given the high percentage of interests we have highlighted that are misrepresented in the draft EIS These land use categories have been used as a comparative assessment criteria in route selections since 2016 and these classification errors may have perpetuated incorrect decisions, particularly as the 'best-route' was a close decision that was certainly not clear-cut in the multi-criteria assessment process (Figure 2.15, Section 2.8.6.2). 	Submitter states to check and correct predominant land use category for all assigned properties as these are not accurate records and therefore not indicative of the impact on agricultural land and residences. Address the impact of these erroneous land use classifications on information and decisions made in other sections of the draft EIS.	Land uses are accurate to QLUMP. QLUMP is used for consistency across Queensland and local/regional boundaries. The revised draft EIS Chapter 8: Land Use and Tenure, Section 8.4, presents updated information on the Project with regards to land-use assessment, identification and mapping existing land uses.	Chapter 8: Land Use and Tenure Section 8.4
201	201.0005	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> Submitter highlights that community groups and Emergency Services in the Pampas and Brookstead communities have been omitted from the list of impacted organisations, and excluded from the community consultation process. The following groups have been omitted: The Pampas Progress Association, The Pampas Rural Fire Brigade (RFB), Brookstead Rural Fire Brigade and Pampas Neighbourhood Watch Group. The submitter states that the impacts of this project on the small regional community are so significant, that they question whether they have been (deliberately) ignored and neglected by ARTC, as the conversations and stakeholder engagement process possess a significant challenge for ARTC to actually execute with little chance of positive and acceptable solutions. Additionally, the submitter highlights that there is an error in the Draft EIS with the respect to the listing of the Millmerran Medical Centre in Chapter 15, Table 15.10 that this medical centre has been closed since January 2020 and therefore is another example of the level of inaccuracy in the draft EIS, displaying lack of attention to detail and fact-checking in preparation of the document. These omissions highlight the lack of a comprehensive social impact assessments, as required by ToR 11.21 and an ineffective and incentive stakeholder engagement program (as ARTC indicated in their Appendix C, specifically Table 2.2 and required in ToR 7.7, 7.8, 7.9. 	<ul style="list-style-type: none"> The community consultation in the Pampas region needs to be completed to engage with all affected community groups to fully address social impact and complete stakeholder engagement The draft EIS needs to complete the detail around rail and access changes and the impact on residences and local businesses so that the full extent of the environmental, social and economic impacts can be assessed. 	<p>As detailed in the revised draft EIS Chapter 5: Project Description, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Projects safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation facilities to likely construction sites for fatigue management purposes (maximum desirable commute of 30 mins) Land tenure, ownership, road access, and area of the site Proximity to supporting infrastructure and services, such as water and electricity Likelihood of social, environmental and heritage related impacts Potential for planned future developments. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project.</p> <p>In early 2023, it was determined that the Turalin site was not a feasible location. BNTAC and Toowoomba Regional Council were advised in March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions. ARTC are committed to continued consultation with the relevant stakeholders. Further analysis will be undertaken on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment.</p>	Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 2.2
201	201.0006	Private - Brookstead	Stakeholder engagement	Road safety	<ul style="list-style-type: none"> Submitter raises concern with respect to a lack of detail in the draft EIS Chapter 23, Table 23.5 – making it difficult to respond to the draft EIS. Submitter highlights that their properties lie either side of the proposed rail line and they will need to transport large machinery across the line on a seasonal basis. Additionally, each of the four operators on their property cross the rail line, on average six times per day at Pampas, making a total of 24 crossings on a regular daily basis. Therefore, this will create huge operational and safety issues for their business plan and personnel and, as yet they have no detail of the road-rail crossing design in their small community, despite asking for these alignments numerous times. For this reason the submitter states they cannot comment on details in the draft EIS as they are not yet available (Table 23.5), and they propose that impacts of the proposed corridor on their daily operations cannot be adequately assessed until this detail is known. 	nil.	As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
201	201.0007	Private - Brookstead	Stakeholder engagement	Directly impacted landowner	<ul style="list-style-type: none"> Stakeholder engagement with ARTC has been unprofessional, disregarding and insensitive, citing an example of the potential substantial impact to their shed, their infrastructure and business operations. Submitter states that they have been communicating with ARTC since the project formation sessions began in 2016 and more recently, it seemed likely to them that one of their major sheds central to their agricultural business would be impacted. However, despite questioning ARTC numerous about this potential impact, they were advised that it would not be affected. The submitter then highlights that they have been informed by ARTC post EIS of potential acquisition of their shed which is the business hub of their agricultural activities which contains a workshop, maintenance facility for the business vehicle fleet, agricultural machinery and operational infrastructure. The shed also houses fuel and chemical supply stations and filling points and the adjoining buildings contain an office space and storage, meeting room, toilet and shower block (adjacent) and water supply for agricultural and residential use. The submitter highlights that the acquisition of this shed will have a huge impact on their business operations and to be informed of this after the EIS is unacceptable. The submitter further expresses that when contacted by ARTC on 9 April 2021 about the impacts, they received an informal text message and ARTC down played the meeting to be low key. 	nil.	<p>As detailed in the revised draft EIS Chapter 5: Project Description, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for three non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Projects safe commutable distances requirements, with proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation facilities to likely construction sites for fatigue management purposes (maximum desirable commute of 30 mins) Land tenure, ownership, road access, and area of the site Proximity to supporting infrastructure and services, such as water and electricity Likelihood of social, environmental and heritage related impacts Potential for planned future developments. <p>Based on these criteria, properties in Yelarbon and Inglewood have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. The third location in the Millmerran area is yet to be determined and non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the EIS and will be obtained prior to accommodation establishment works commencing.</p> <p>Community engagement has been undertaken with the community and key stakeholders during the selection process. In October 2021, an information session was held in each of the localities, and the ARTC team received feedback from the attendees for a strong preference for the non-resident workforce accommodation facility to be located within Millmerran township, and for further engagement from the Project.</p> <p>In early 2023, it was determined that the Turallin site was a not a feasible location. BNTAC and Toowoomba Regional Council were advised in March 2023 and ARTC commenced engagement with key stakeholders including and the community on potential preferences for a site in the Millmerran area. ARTC notes of community concerns received through the community engagement sessions in 2021 and 2023, and related EIS submissions. ARTC are committed to continued consultation with the relevant stakeholders. Further analysis was undertaken during 2023 on a preferred site location. Further details on how ARTC will be managing workforce accommodation is contained in Appendix X: Social Impact Assessment (Section 8.4).</p>	Appendix X: Social Impact Assessment Section 8.4 Appendix E: Consultation Report Section 4.5
201	201.0008	Private - Brookstead	Social Impact Assessment		<ul style="list-style-type: none"> Submitter highlights their concerns that approval of an incomplete EIS lacking detail in many aspects, would leave them with no recourse for action against unacceptable design decisions by ARTC after the event. Submitter claims that the draft EIS does not provide a comprehensive document on social and business impacts as the detail is not provided, and in many instances is not yet complete or available. It is apparent that the EIS process has been undertaken prematurely before the plans have been developed to a stage where the full economic, environmental, and social impacts can be assessed and responded to by the affected communities. 	nil.	<p>The revised draft EIS was undertaken in compliance with the Terms of Reference set by the Office of Coordinator-General. It is not uncommon for an EIS to be undertaken before all of the finer details are finalised. Appendix X: Social Impact Assessment, Section 8 includes an updated Social Impact Management Plan (SIMP) and monitoring strategy to support adaptive management of social impacts and opportunities for the Project to benefit local communities. Appendix X: Social Impact Assessment, Section 8.2.2 also commits to an ongoing process of engagement with stakeholders to resolve issues as they arise.</p>	Appendix X: Social Impact Assessment Section 8 Section 8.2.2
201	201.0009	Private - Brookstead	Land Use and Tenure	Land acquisition/compensation	<ul style="list-style-type: none"> Submitter claims that land acquisition requirements given in the EIS are currently incomplete and misleading, as the detail has not yet been determined, for the full extent of land acquisition, prior to submission of the EIS. This directly contravenes TOR 11.74 regarding tenure changes and timing of acquisitions. Submitter highlights that it is obvious from recent conversations with ARTC from April 2021, that the detail of land acquisition is not yet finalised. 	nil.	<p>ARTC are currently consulting with affected landowners and negotiating acquisition of land where required.</p> <p>The revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1 outlines that consultation with affected landowners and the wider community is ongoing and in accordance with ARTC's consultation plan. Section 8.5.1 and Table 8-51 states, each property solution will be designed on a case-by-case basis through ongoing consultation with landowners and further design refinement. Further detail on consultation and mitigations are presented in Appendix E: Consultation Report. Negotiation of land acquisition will be undertaken in accordance with the Acquisition of Land Act, which includes the process for the resumption of land by a construction authority and compensation. Further detail is commercial in confidence.</p>	Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-51 Appendix E: Consultation Report
201	201.0010	Private - Brookstead	Stakeholder engagement	Directly impacted landowner	<ul style="list-style-type: none"> ARTC stakeholder engagement has failed to build trust, credibility and visibility, due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts. Submitter cited an example when family representatives attended a consultation meeting around the road and rail design at Pampas Hall in June 2019, to which the consultation process highlighted ARTC's intent to 'inform' landowners of impacts to their property and violate their 'promise to the community' to listen to input on impacts and concerns about possible alternative design. The process highlighted that avoiding an impact is not the highest priority but rather that mitigate seems to be an acceptable option to ARTC when alternatives for avoidance have not been discussed or considered, being a direct violation of TOR 10.10. ARTC has been unprofessional when communicating with residents as there has been a lack of documentation of meetings held, a lack of follow up on action items and information provided. 	nil.	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC notes it met with representatives of the landowner in June 2019 as part of a targeted community workshop around the Pampas road rail interface and local load design. This workshop was an information-gathering exercise and ARTC considered the feedback received in developing the design. Subsequent to the submission of the draft EIS, ARTC has undertaken further engagement with the Pampas community about the road/rail interface and made changes to the design.</p> <p>ARTC provided written notes of meetings to attendees when requested at the time of the meeting. Between July 2019 and December 2022, Inland Rail contacted the submitter on several occasions, including in relation to his membership on the Southern Darling Down CCC. In February 2023, the submitter agreed to meet with ARTC face-to-face in March 2023. At this meeting, ARTC discussed and agreed to transfer to the Inner Darling CCC and organising a time to meet with him on his property to discuss his concerns and the impacts of the Project to his property to seek his input into the process. The submitter agreed to a meeting in the future. This on-property meeting is yet to occur. ARTC is committed to regularly communicating to the submitter to organise a suitable time to meet.</p>	Appendix E: Consultation Report Section 3
201	201.0013	Private - Brookstead	Stakeholder engagement		<p>Submitter states that ARTC have failed to 'build trust and credibility' in stakeholder engagement, failing the steps of 'consult and collaborate' with respect to flood modelling and impacts. Communication around flooding, flood model and impacts with ARTC have been dismissive and treated affected landowners with disregard and sometimes even contempt. Submitter cites the below examples:</p> <ul style="list-style-type: none"> Inaccurate information was presented by ARTC at the Sydney conference in 2019 regarding floodplain width of the Condamine River and when this was presented to the Toowoomba regional councillors on 3 September 2019, ARTC were reluctant to update the flood model to include extra water and would only acknowledge that the depth of water at this location in 2010 flood was 20cm when photographic evidence clearly indicated otherwise. Dr McIntosh presented findings of a review of the flood model to the community at Brookstead Hall and the community's follow up questions were not responded to for over three months. When Dr McIntosh did respond, it was suggested that 'the historic records may be inaccurate'. Senior employees of ARTC supplied misinformation to the Senate committee in April 2019, demonstrating a lack of consultation within ARTC from the ground up, as well as its dismissal of documentary flood evidence and concerns about the flood model conveyed to them by affected landowners. 	nil.	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.1.</p> <p>Chapter 6: Stakeholder Engagement, Section 6.6 and Appendix E: Consultation Report, Section 5.3 of the revised draft EIS details the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>ARTC provided technical information to Dr Macintosh for his independent review but was otherwise not involved in this process and is unable to comment on the review process. In 2020, ARTC also shared technical information with the Independent International Panel of Experts for Flood Studies, established by the Australian and Queensland Governments to provide advice on the flood models and structural designs developed by ARTC for Inland Rail in Queensland.</p> <p>The Panel released its draft report in March 2021. In April and November 2021, ARTC held open community meetings with the IDDCCC and the SDDCCC in Millmerran to provide an overview of their draft report. As part of additional assessment and studies conducted for this revised draft EIS, ARTC has assessed all local catchments against the new Flood Impact Objectives (FIOs), which determine the acceptable parameters within which the Project can change or increase the existing flood conditions. Additional consultation was undertaken in October 2022 with all landowners that were shown to have the highest exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property.</p>	Chapter 6: Stakeholder Engagement Section 6.6 Appendix E: Consultation Report Section 5.3
201	201.0014	Private - Brookstead	Flooding - Condamine River		<p>Submitter highlights the concerns of the community, regarding potential dangers to lives, homes, rural infrastructure, prime agricultural land and the unique highly fertile black cracking clay (vertisol) soil resource and agriculture enterprises due to an unacceptable flood risk imposed by the Inland Rail design. Submitter claims that the current design will result in both short-term and long-term impacts that are irreversible due to changed water flow and velocity resulting from the proposed rail design. Submitter highlights that ARTC do not fully understand or acknowledge the potential flood impacts and the damage it will cause to the fragile vertisol soils and damage to the cropping systems and environment resource. Refer to pages 9-13 with respect to examples of concerns of the Inland Rail design, expected to have flood impacts</p>	nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for water flow velocities. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 4.2 Section 5-17
201	201.0015	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> Submitter highlights that as per Section 12.6.3.2, statement Figure 12.20b, it is obvious that the flood impacts of the current rail design objectives is happening at critical flood receptors, as well as across areas of agricultural land. Submitter highlights that three of the impacted receptors in Table 12.75 are located on their properties, and yet there has not been any communication from ARTC with respect to these findings 	nil.	<p>ARTC has held numerous meeting with representatives of the owners of this group of properties to discuss in detail the predicted changes to flood levels at the properties. The engagement supporting the development of the Condamine floodplain crossing is detailed in Appendix E: Consultation Report, Section 5.4</p>	Appendix E: Consultation Report Section 5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
201	201.0016	Private - Brookstead	Flooding	Modelling	Submitter highlights that the revised flood impact objectives, allow for changes in peak heights of up to 200 mm on agricultural land, with up to 400 mm in localized areas. Submitter disputes the flood impact objectives stating that it is not acceptable for an increase of 200 to 400 mm over agricultural cropping land due to rail design. Submitter further highlights that most of their six parcels of land lying adjacent to the rail line on the Millmerran-Leyburn road have unacceptable flood height increases and they dispute that this is an acceptable flood design criterion. The submitter further notes that of these six land parcels, only two have been included as Impacted properties in Appendix F, Table F.2. Submitter highlights that most of their parcels of land in close proximity to the rail line in Pampas have unacceptable flood height increases and dispute that this is an acceptable flood design.	nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for changes in peak water levels. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.35 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. The updated flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 4.2 Section 5-17
201	201.0017	Private - Brookstead	Flooding	Erosion	Submitter highlights concern around the risk of erosion from potential embankment failure, which is not addressed in the draft EIS, in violation of mandatory TOR 6.2. Submitter highlights that embankment failures have occurred on ARTC constructions and it is a fear that an embankment failure on the fragile soils of the Condamine floodplain would result in damage and soil loss that could never be repaired or retrieved. Submitter states that this is a totally unacceptable risk to soil management practices in these agricultural systems.	The Condamine Main Brand Bridge be extended 400 m to the South to join the Condamine South Brand Bridge. The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage due to concentrated water flow through culverts in this area Request a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of the EIS Chapter 14: Flooding and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of the revised draft EIS, Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office. The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.2a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk (Section 22.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Figure 14-20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3 Section 22.3 Appendix B
201	201.0018	Private - Brookstead	Flooding	Modelling	Submitter highlights inaccuracies, bias, and poor calibration in relation to the flood modelling. Further detail on page 17-18 of submission.	Submitter states that they really do not know what the suggested solution is for Pampas, and the reality is that they will not know the impacts until the first major flood events. Submitter highlights that this is the frightening reality for residents in the concentrated region of housing on the Condamine floodplain. The state of the flood model gives little confidence in assessing the likely impacts as it currently under-predicts and has spatial bias around key receptors in the Pampas locality. The predicted changes in flood height for both agricultural land and residential properties is unacceptable and violates the flood impact objectives in the draft EIS. The submitter implores the CG to direct technical flood experts to genuinely work with the community of affected landowners in Pampas to devise an acceptable design solution in this area.	The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2 Section 7.2 Section 7.2.3 Section 7.3
201	201.0019	Private - Brookstead	Flooding	Mitigation measures	Submitter highlights concerns with respect to flood impacts in Pampas region and states that the draft EIS does not address alternative rail design that may mitigate these flood impacts; violating TOR 11.68, 11.69, 11.142 as it ignores the potential risks to people and property, that may be associated with the Project from flooding deeming the design as an acceptable risk. The submitter outlines 6 key reasons of concerns regarding flood impacts in Pampas region, refer to page 19-20 of the submission.	Submitter states that they really do not know what the suggested solution is for Pampas, and the reality is that they will not know the impacts until the first major flood events. Submitter highlights that this is the frightening reality for residents in the concentrated region of housing on the Condamine floodplain. The state of the flood model gives little confidence in assessing the likely impacts as it currently under-predicts and has spatial bias around key receptors in the Pampas locality. The predicted changes in flood height for both agricultural land and residential properties is unacceptable and violates the flood impact objectives in the draft EIS. The submitter implores the CG to direct technical flood experts to genuinely work with the community of affected landowners in Pampas to devise an acceptable design solution in this area.	Operational flood impacts in the Condamine River floodplain have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.5 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.	Chapter 14: Flooding and Geomorphology Section 14.5 Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.2 Section 7.2.3 Section 7.3 Section 7.5.3
201	201.0020	Private - Brookstead	Flooding		The submitter highlights that the work of the Independent Panel of Expert for flood studies directly relates to the draft EIS, specifically the Condamine River floodplain Section of the proposed B-G route. Therefore, the submitter states the CG should invite ARTC to withdraw the draft EIS, ensuring the Panels advice and best practice for design of waterway structures in a floodplain environment is incorporated into the draft EIS for the CG and stakeholders to consider and comment. The submitter requests the CG to commit to awaiting the release of the Panels advice before making a determination on the draft EIS, and prior to doing so invite stakeholders to comment on the Panel's findings.	The submitter requests that the CG insist that the flood impact objectives listed in Table 12.8 be changed to specify: a. no flood height increases be allowed on sensitive housing and infrastructure receptors on the Condamine flood plain as it is felt that an allowance of an increase in 10 mm is an unacceptable objective given the uncertainty and inaccuracies around flood model for such a complex flood plain system. b. no increase in flood height be allowed due to rail design on agricultural cropping land. The submitter requests that the CG review the flood impact objectives in Table 12.8 and insist on no change in a. duration of flood inundation time, b. flood flow distribution and c. velocity. Submitter further highlights that there is no specific criteria around changes in these flooding parameters, as ARTC only need to justify acceptability of these changes. The submitter proposes that no change is acceptable under sound environmental management and in relation to TOR 6.2, 11.69, 11.142 (a)(i). Submitter requests that the flood impact objectives must include a requirement to adhere to best management practices for agricultural farming systems and soil conservation on the Condamine flood plain. To simply adhere to best management practices for rail and bridge design and hydrology and hydraulic practices in total isolation and disconnect from best management practices on the environmental system on which the rail structure is built is unacceptable and ineffective and contravenes TOR 6.2. This disconnect cannot result in acceptable assessment of environment impacts. The submitter requests that the Coordinator-General reject the application of flood model outputs presented in the EIS as unacceptable. The Floodplain residents request to work with the international panel of experts to interpret the flood impact assessment and modify rail design to produce an acceptable environment outcome-that is, nil change to flooding risk.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
202	202.0001	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC's approach to community engagement and communication has been the opposite of informative, collaborative and transparent, highlighting shortcomings of ARTC to demonstrate the expected behaviours and communication principles depicted in Appendix C – Section 2.5, Figure 2.1. Additionally ARTC provides no acknowledgement or rationale for the omission of the empower principle (depicted in Figure 2.1), displaying another example of a lack of transparency and accountability in their public communication, consultation and engagement process. 	<ul style="list-style-type: none"> Submitter requests for the Coordinator-General remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of Inland Rail. The community consultation process needs to be undertaken by an independent facilitator who oversees the consultation to ensure a fair process where community concerns are heard, acknowledged, considered and the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Section 2.5, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS (Chapter 23, Table 23.5), which does not provide an opportunity for impacted community members and landowners to adequately respond to the EIS as there is not sufficient information on road and rail design. The Social Impact survey presented in Appendix U must be undertaken again to provide valid representation on community views and responses. A stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on the success (or lack thereof) of ARTCs stakeholder engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact (Chapter 23, Table 23.5). 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p> <p>There has been ongoing engagement with the communities, businesses and local road users along the alignment during the development of the revised draft EIS, and changes to the reference design have been made in response to stakeholder input and feedback. Details of traffic and transport consultation outcomes are in Appendix E: Consultation Report, Section 5.5.</p> <p>The reference design is an iterative process, and stakeholder engagement is ongoing. As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.3</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 5.5</p> <p>Section 6</p>
202	202.0002	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. Submitter disputes the claims of ARTC managing social impacts in Section 8.2.3 – Partnership and Agreements in Appendix U (Table 8-5); are concerned that ARTC claims and responsibilities to undertake further stakeholder engagement (Section 8.2.5) with affected landowners through the detailed design phase and ongoing stakeholder engagement. 	<ul style="list-style-type: none"> Submitter requests for the Coordinator-General remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of Inland Rail. The community consultation process needs to be undertaken by an independent facilitator who oversees the consultation to ensure a fair process where community concerns are heard, acknowledged, considered and the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Section 2.5, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS (Chapter 23, Table 23.5), which does not provide an opportunity for impacted community members and landowners to adequately respond to the EIS as there is not sufficient information on road and rail design. The Social Impact survey presented in Appendix U must be undertaken again to provide valid representation on community views and responses. A stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on the success (or lack thereof) of ARTCs stakeholder engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact (Chapter 23, Table 23.5). 	<p>ARTC provided written notes of meetings to attendees when requested at the time of the meeting. ARTC acknowledges that multiple Project representatives did attend some meetings; however, meeting attendees were selected for their knowledge on specialised issues to be discussed at a meeting (e.g. design, hydrology, property).</p> <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>An independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Appendix E: Consultation Report, Section 5.5, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design refinements.</p> <p>ARTC notes that the community survey was only one element of the community engagement carried out to inform the SIA. Other elements are described in Appendix E: Consultation Report, Section 5.11, including a program of quarterly community surveys to gather feedback on communications and interactions.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.5</p> <p>Section 5.11</p>
202	202.0003	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records.</p>	<ul style="list-style-type: none"> Submitter requests for the Coordinator-General remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of Inland Rail. The community consultation process needs to be undertaken by an independent facilitator who oversees the consultation to ensure a fair process where community concerns are heard, acknowledged, considered and the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Section 2.5, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS (Chapter 23, Table 23.5), which does not provide an opportunity for impacted community members and landowners to adequately respond to the EIS as there is not sufficient information on road and rail design. The Social Impact survey presented in Appendix U must be undertaken again to provide valid representation on community views and responses. A stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on the success (or lack thereof) of ARTCs stakeholder engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact (Chapter 23, Table 23.5). 	<p>Appendix E: Consultation Report, Section 5.3 details the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>Community engagement has influenced the development of the reference design. The Condamine floodplain crossing design has been updated to incorporate community feedback. Key design elements include:</p> <ul style="list-style-type: none"> building four bridges (6.2 km total bridge length) constructing approximately 600 reinforced concrete culvert cells (900 mm–2.1 m in diameter) at 83 locations extending the proposed bridge over the North Branch by approximately 250 m north moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge increasing the number of proposed culverts near the Yandilla grain silos to ensure the drainage channel to the south of the silos has enough culverts to convey flood water one-on-one consultation to discuss mitigation measures with landowners for impacted properties. <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Appendix E: Consultation Report, Section 5.5, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>ARTC notes that the community survey was only one element of the community engagement carried out to inform the SIA. Other elements are described in Appendix E: Consultation Report, Section 5.11, including a program of quarterly community surveys to gather feedback on communications and interactions.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.5</p> <p>Section 5.11</p>
202	202.0004	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p>	<ul style="list-style-type: none"> Submitter requests for the Coordinator-General remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of Inland Rail. The community consultation process needs to be undertaken by an independent facilitator who oversees the consultation to ensure a fair process where community concerns are heard, acknowledged, considered and the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Section 2.5, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS (Chapter 23, Table 23.5), which does not provide an opportunity for impacted community members and landowners to adequately respond to the EIS as there is not sufficient information on road and rail design. The Social Impact survey presented in Appendix U must be undertaken again to provide valid representation on community views and responses. A stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on the success (or lack thereof) of ARTCs stakeholder engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact (Chapter 23, Table 23.5). 	<p>ARTC notes that this submission refers to a community engagement event held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development.</p> <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Appendix E: Consultation Report, Section 5.5 of the Stakeholder Engagement Report in the revised draft EIS, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>ARTC notes that the community survey was only one element of the community engagement carried out to inform the SIA. Other elements are described in Appendix E: Consultation Report, Section 5.11, including a program of quarterly community surveys to gather feedback on communications and interactions.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.5</p> <p>Section 5.11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
202	202.0005	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. A stakeholder satisfaction survey has not been undertaken, there is zero evidence to substantiate the claims surrounding the effectiveness or results of stakeholder engagement made in the EIS. Submitter states that this has been a deliberate omission and that this two-way feedback must be an essential component of the EIS there is also no accountability on behalf of ARTC to evaluate their own effectiveness in engagement, specifically with impacted landowners and this inability to address and detail the results of the implementation directly contravenes ToR 7.9. 	<ul style="list-style-type: none"> Submitter requests for the Coordinator-General remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of Inland Rail. The community consultation process needs to be undertaken by an independent facilitator who oversees the consultation to ensure a fair process where community concerns are heard, acknowledged, considered and the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Section 2.5, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS (Chapter 23, Table 23.5), which does not provide an opportunity for impacted community members and landowners to adequately respond to the EIS as there is not sufficient information on road and rail design. The Social Impact survey presented in Appendix U must be undertaken again to provide valid representation on community views and responses. A stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on the success (or lack thereof) of ARTCs stakeholder engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact (Chapter 23, Table 23.5). 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p> <p>There has been ongoing engagement with the communities, businesses and local road users along the alignment during the development of the revised draft EIS, and changes to the reference design have been made in response to stakeholder input and feedback. Details of traffic and transport consultation outcomes are in Appendix E: Consultation Report, Section 5.5.</p> <p>The reference design is an iterative process, and stakeholder engagement is ongoing. As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.3</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 5.5</p> <p>Section 6</p>
202	202.0006	Private - Brookstead	Flooding	Modelling	Issues raised with respect to flood modelling and hydrology which have not been fully resolved and validated. Submitter highlights that the EIS is incomplete as it does not consider: The ongoing investigation by the Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by ARTC and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021. The ongoing assessment of the Independent Panel of Experts for Flood Studies, which states it expected to complete their work by the end of 2021	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 7.6</p>
202	202.0007	Private - Brookstead	Flooding - Condamine River	Modelling	Concerns raised with respect to the complexity and limitations of modelling the Condamine floodplain with sparse data: The flood model is calibrated on only two flood events (1991 and 2010) and it is to be questioned whether this is sufficient data to build a model for the complex nature of the Condamine floodplain. Both flood events of 1991 and 2010 fall below a 1 in 100 event, equal to an annual exceedance probability (AEP) of 1%. The 2010 flood event is shown as being a 1 in 20 year flood (5% AEP) at the Warwick gauge station, between a 1 in 20 year and a 1 in 50 year flood at the Turmaville gauge station (2-5% AEP) and between a 1-2%AEP at the Cecil Plain Weir. Therefore, predictions for the 2010 flood and allowances for these water heights do not meet the 1 in 100 event requirements for rail design. The model is limited, as the accuracy has not been assessed against a known even of this magnitude. Refer to submission, page 11 for further technical detail.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data and are utilised to determine the robustness of the flood model to predict flood impacts for design events. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.2</p> <p>Section 7.2.3</p> <p>Section 7.3</p> <p>Section 7.6</p>
202	202.0008	Private - Brookstead	Flooding - Condamine River	Modelling	Issues raised with modelling the complexity of modelling the Condamine system. Concerns raised with respect to the data inputs for model calibration are not being used from Turmaville station. Submitter highlights understanding of the unreliability of this gauge station, but also understand the changes in the system between Warwick and Turmaville, and the associated tributaries that enter the system between these two gauging stations. Submitter questions, the importance of the discrepancy in the results in Table 9.15 and Table 9.16 (Appendix Q1), showing the differences between the flood frequency analysis and URBS model flows. Submitter states that surely the URBS model flows in Table 9.16 are a gross under-prediction of the flood frequency analysis peak discharges and requests that these results be more clearly explained and presented in the EIS document.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>URBS results were reconciled against Flood Frequency Analysis at an upstream pivot (Warwick) and a downstream pivot (Cecil Weir + Lone Pine, i.e. 'Outlet'). The match between URBS and FFA flows is not as strong as the 'outlet' compared to that at Warwick and is a result of the URBS model being insufficient for capturing the full floodplain behaviours (e.g. braided channels and large storage) downstream of Warwick, which must be resolved hydraulically. To clarify these uncertainties, in consultation with the Expert Flood Panel, the Condamine River hydraulic model has been extended past the Cecil Weir gauge to enable a joint calibration/validation with the URBS model for four well-recorded historical events (1991, 2010, 2013, 2021) (Section 7, Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The joint calibration/validation found that the differences between modelled and recorded flood levels at Cecil Weir were between +60 mm (+0.6% difference in depth) and +250 mm (3.4% difference in depth) respectively. The current design hydrology and flood modelling approach are considered suitably robust and conservative for the purposes of the revised draft EIS.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 7</p>
202	202.0009	Private - Brookstead	Flooding	Modelling	Concerns raised with respect to the validation of the flood model. Submitter highlights that with respect to the floodmarks, summarized in Table 9.28, that the validation exercise has eroded trust and credibility in the flood model, rather than increased confidence in the model as claimed in the draft EIS. Refer to page 13-14 for further technical detail.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>2010 floodmark validation has been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Updated floodmark validation results can be found in Table 7.31 of Section 7.3.7 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 7.3.7</p> <p>Section 7.6</p> <p>Table 7.31</p>
202	202.0010	Private - Brookstead	Flooding	Modelling	Submitter highlights that ARTC representatives supplied misinformation to the Senate committee, demonstrating a lack of consultation within ARTC from the ground up as well as its dismissal of documentary flood evidence and concerns about the flood model convey to them by affected landowners.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 7.6</p>
202	202.0011	Private - Brookstead	Flooding	Modelling	Local floodplain residents have been attempting to work with ARTC for over three years around the accuracy of the flood model and the height and extent of water in the 2010 flood event. Additionally, request for further detail around the flood model has not been forthcoming to address concerns. The local floodplain residents have been continually assured that the flood model is 'fit for purpose' however the residents are still very uncertain about its accuracy, validity and ability to predict future events. There has been little communication about modelled results on properties and increased flood impacts due to the IR rail design.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>Operational flood impacts in the Condamine River floodplain have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.5 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.5</p> <p>Section 14.8.1</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.5.3</p>
202	202.0012	Private - Brookstead	Flooding		ARTCs history of rail design failures where flood plains are involved, gives significant cause for concern. Examples cited from South Australia and Moreton Bay. Further technical detail provided on page 16 of submission.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p> <p>Section 7.2</p> <p>Section 7.2.3</p> <p>Section 7.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
202	202.0013	Private - Brookstead	Flooding		Local landowners are extremely concerned about potential dangers to lives, homes, rural infrastructure and prime agricultural land, the unique and highly fertile black cracking clay (vertosol) soil resource and agricultural enterprises due to an unacceptable flood risk imposed by the IR design. Concerns raised with respect to the current design, that it will result in both short-term and long-term impacts that are irreversible, due to changed water flow and velocity resulting from the proposed rail design. These changes directly contravene the mandatory ToR of 6.2 as the EIS does not acknowledge that these flooding impacts are likely to be irreversible. Refer to page 18 for further details about flooding impact concerns.	The Condamine Main Branch Bridge be extended 400 m to the South to join the Condamine South Branch Bridge The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage to concentrated water flow through culverts in this area. The submitter requests a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for water flow velocities. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 4.2 Section 5-17
202	202.0014	Private - Brookstead	Flooding		Submitter highlights that the inundation maps from Appendix Q2 at this location show unacceptable increased heights from minor to major flood events around the proposed rail structure. Refer to page 19 of submission for more detail. The impact of the rail design from Millmerran-Leyburn road to the Condamine River for more extreme events results in alarming increases in flood height of up to 0.5 m and, the submitter states that this flood impact is totally unacceptable The draft EIS does not address alternative rail design that may mitigate these flood impacts, and this violates ToR 11.68, 11.69, 11.142 as it ignores avoidance of the potential risks to people and property that may be associated with the project from flooding. Submitter disagrees with the assumptions made in Chapter 12 (P 12-166) of the draft EIS that the change in peak water levels due to design are acceptable. From this statement the submitter states that it is obvious that the impacts of the rail design result in unacceptable changes that violate the flood-impact objectives, and that this failure to meet design objectives is happening at critical flood receptors, as well as across areas of agricultural land. Submitter highlights a second major concern that the series of culverts (and bridge pylons) will increase the flow volumes and water velocity when water is channelled under and around these structures, increasing the erosion risk and causing long-term and irreversible damage to the farming system and soils (see ToR 6.2). Submitter highlights that long-term and irreversible environment impacts associated with this obstruction to the natural water flow in flood events is unacceptable. The current design must be further modified to remove the obstruction and inadequate drainage resulting from the use of culverts in the design.	The Condamine Main Branch Bridge be extended 400 m to the South to join the Condamine South Branch Bridge The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage to concentrated water flow through culverts in this area. The submitter requests a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Hydrology and Flooding of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities).</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Figure 14.20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3
202	202.0015	Private - Brookstead	Flooding		Submitter raises concern regarding increased risk of Soil Erosion with irreparable and irreversible impacts. Local landowners have tried to collaborate with ARTC and FFJV on numerous occasions to discuss the consequences of erosion both adjacent to and downstream from the proposed rail design, due to increased velocity by impeding water flow across an 18 km floodplain to a cross-sectional area of 7.5 km of bridging and culverts, under an elevated wall of up to 3 m high. Refer to pages 20-22 for further information.	The Condamine Main Branch Bridge be extended 400 m to the South to join the Condamine South Branch Bridge The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage to concentrated water flow through culverts in this area. The submitter requests a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities).</p> <p>Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk.</p> <p>An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design.</p> <p>Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Scour and erosion protection measures will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Section 22.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Figure 14-20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 7.5.3 Section 22.4 Appendix B
202	202.0016	Private - Brookstead	Flooding		The submitter raises concerns with the flood impact objectives and disputes EIS claims around rail design. The Submitter questions the flood impact objectives and proposes that it is not acceptable for an increase of 200 to 400 mm over agricultural cropping land due to rail design. Refer to pages 21-22 of submission for further details.	nil.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for land, with further FIO requirements that relate to land usage, impacted area, etc. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the Detailed Design stage of the Project.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17
202	202.0017	Private - Brookstead	Flooding		The submitter highlights that the work of the Independent Panel of Expert for flood studies directly relates to the draft EIS, specifically the Condamine River floodplain Section of the proposed B-G route. Therefore, the submitter states the CG should invite ARTC to withdraw the draft EIS, ensuring the Panels advice and best practice for design of waterway structures in a floodplain environment is incorporated into the draft EIS for the CG and stakeholders to consider and comment. The submitter requests the CG to commit to awaiting the release of the Panels advice before making a determination on the draft EIS, and prior to doing so invite stakeholders to comment on the Panel's findings. The submitter further requests that the CG insist that the flood impact objectives listed in Table 12.8 be changed as per indication in point 1, on page 23 of the submission. The submitter further requests that the CG review the flood impact objectives in Table 12.8 and insist no change as per indication in point 2, on page 23 of the submission. The submitter proposes that no change is acceptable under sound environmental management and in relation to ToR 6.2, 11.69, 11.142 (a) (ii)The submitter requests that the flood impact objectives must include a requirement to adhere to best management practices for agricultural farming systems and soil conservation on the Condamine flood plain. Refer to further detail provided on page 24 of submission. The submitter requests that the CG reject the application of flood model outputs presented in the EIS as unacceptable. Refer to further detail provide on page 24 of submission.	nil.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Chapter 14: Flooding and Geomorphology Section 14.10.1 Table 14-117 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 5-17
202	202.0018	Private - Brookstead	Flooding	Modelling	The submitter raises concerns with respect to the flood modelling and climate change impacts, stating that the rail design fails to meet flood impact objectives for seasonal variations and the likely impact of climate change into the near future, where these extreme events will be of greater intensity and occur at more frequent intervals. The submitter highlights that whilst the EIS addresses the flood immunity of the current rail design, it makes no consideration of the impacts on agricultural land, or detailed assessment of sensitive flood receptors under this climate change scenario and this is a failure to meet the mandatory requirements of ToR 6.2 and 6.3, as well as ToR 11.48 and 11.54	nil.	<p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Climate change and the selected Representative Concentration Pathway are discussed throughout Chapter 14: Flooding and Geomorphology and Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS (within the climate change assessment of each catchment area in Sections 5 to 17). For the avoidance of doubt the RCP 8.5 (2090 horizon) climate change scenario has been adopted for the Project.</p>	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Sections 5 - 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
202	202.0019	Private - Brookstead	Flooding	Modelling	Submitter states that the draft EIS fails to address uncertainty in the hydrologic and hydraulic models presented, and that results are presented in a deterministic way. Submitter states that given the complex nature of the Condamine flood plain system and the associated difficulties in flood modelling, it is imperative that a full analysis of uncertainty surrounding the predicted peak heights, flow velocities and inundation times are assessed. The submitter highlights that these omissions in the current draft of the EIS document violate the mandatory requirements of ToR 6.3.	Draft EIS submitted by ARTC should be rejected on the grounds that: It does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. The draft EIS is incomplete due to the omission of an assessment of uncertainty surrounding the flood model outputs including predictions of peak height, flow velocity and inundation time for flood events. This is in violation of the draft EIS as indicated in Table 23.5. The flood impact on the Condamine floodplain cannot be determined until the details of the project footprint, level crossing design, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As with all of our prior interactions with ARTC, the detail is scant and is not yet available.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the reference design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6
203	203.0001	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility, and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', which has been the opposite of informative, collaborative and transparent. The social impact of the poor communication and engagement process on ARTC's behalf has been negative; leading to increased anxiety, frustration and mistrust, as information provided by ARTC has consistently been lacking detail, contradictory in nature or not forthcoming. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach 	<ul style="list-style-type: none"> The shortcomings of ARTC's communication and engagement process, as well as their consultation program with impacted landowners be addressed before it would even be possible for ARTC to address the subsequent (and significant) issues within their impact assessment process. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the submitter requests that the CG remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of inland rail. Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence of ARTC's stakeholder Engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC notes that this submission refers to a community engagement event held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development.</p> <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>Consultation in Brookstead: ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead.</p> <p>Consultation in Pampas: ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing.</p> <p>Subsequent to the submission of the draft EIS, ARTC has implemented a program of quarterly community surveys to gather feedback on communications and interactions. An addition survey Living in Place was conducted in 2022 to inform the Social Impact Assessment.</p>	Chapter 6: Stakeholder Engagement Section 6.3 Section 6.6 Appendix E: Consultation Report Section 2 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan
203	203.0002	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> There has been no documentation of meetings, limited to no follow-up undertaken on any requested action items and a paucity of communication about the influence public opinion has had on project development. The failure to provide accurate information to the affected community, combined with the organization representatives' lack of effective interpersonal and communication skills when interacting with vulnerable community members, has created a power and authority imbalance, which is disempowering to the local community. 	<ul style="list-style-type: none"> The shortcomings of ARTC's communication and engagement process, as well as their consultation program with impacted landowners be addressed before it would even be possible for ARTC to address the subsequent (and significant) issues within their impact assessment process. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the submitter requests that the CG remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of inland rail. Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence of ARTC's stakeholder Engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC notes that this submission refers to a community engagement event held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>Consultation in Brookstead: ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead.</p> <p>Consultation in Pampas: ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing.</p> <p>Subsequent to the submission of the draft EIS, ARTC has implemented a program of quarterly community surveys to gather feedback on communications and interactions. An addition survey Living in Place was conducted in 2022 to inform the Social Impact Assessment.</p>	Chapter 6: Stakeholder Engagement Section 6.3 Section 6.6 Appendix E: Consultation Report Section 2.1 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan
203	203.0003	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC have fallen short at demonstrating the expected behaviours and communication principles outlined within the four steps of inform, consult, involve and collaborate, in the engagement process (depicted in Figure 2.1) whilst not providing any rationale for omitting the empower step from their public consultation approach. The EIS provides much documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board, what the action items are and whether/how these have been addressed and how the outcome assessment of how action items have been addressed, including the quality of the work in addressing action items (as opposed to arbitrarily 'ticking the box'). As no stakeholder satisfaction survey has been undertaken, there is zero evidence to substantiate the claims surrounding the effectiveness or results of Stakeholder engagement made in the EIS. The submitter states this is a deliberate omission and that two-way feedback must be an essential component of the EIS document. The lack of outcome measurements not only means we have no data on how effective the stakeholder engagement process has been, but more importantly, that there is no accountability on the behalf of ARTC to evaluate their own effectiveness in engagement, specifically with impacted landowners. This inability to address and detail the results of the implementation directly contravenes TOR 7.9 	<ul style="list-style-type: none"> The shortcomings of ARTC's communication and engagement process, as well as their consultation program with impacted landowners be addressed before it would even be possible for ARTC to address the subsequent (and significant) issues within their impact assessment process. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the submitter requests that the CG remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of inland rail. Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence of ARTC's stakeholder Engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC notes that this submission refers to a community engagement event held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>Consultation in Brookstead: ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead.</p> <p>Consultation in Pampas: ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing.</p> <p>Subsequent to the submission of the draft EIS, ARTC has implemented a program of quarterly community surveys to gather feedback on communications and interactions. An addition survey Living in Place was conducted in 2022 to inform the Social Impact Assessment.</p>	Chapter 6: Stakeholder Engagement Section 6.3 Section 6.6 Appendix E: Consultation Report Section 2.1 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
203	203.0004	Private - Brookstead	Stakeholder engagement		The submitter states their concerns around ARTC claims and responsibilities to undertake further stakeholder engagement with affected landowners through the detailed design phase and ongoing stakeholder engagement.	<ul style="list-style-type: none"> The shortcomings of ARTC's communication and engagement process, as well as their consultation program with impacted landowners be addressed before it would even be possible for ARTC to address the subsequent (and significant) issues within their impact assessment process. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the submitter requests that the CG remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of inland rail. Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence of ARTC's stakeholder Engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p> <p>There has been ongoing engagement with the communities, businesses and local road users along the alignment during the development of the revised draft EIS, and changes to the reference design have been made in response to stakeholder input and feedback. Details of traffic and transport consultation outcomes are in Appendix E: Consultation Report, Section 5.5.</p> <p>The reference design is an iterative process, and stakeholder engagement is ongoing. Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.3</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
203	203.0005	Private - Brookstead	Stakeholder engagement		ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records.	<ul style="list-style-type: none"> The shortcomings of ARTC's communication and engagement process, as well as their consultation program with impacted landowners be addressed before it would even be possible for ARTC to address the subsequent (and significant) issues within their impact assessment process. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the submitter requests that the CG remove the responsibility from ARTC for ongoing stakeholder engagement through the detailed design process and the operation phase of inland rail. Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence of ARTC's stakeholder Engagement process. The EIS should be rejected based on the incomplete and inconclusive nature of information that stakeholders need to effectively comment on the environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC notes that this submission refers to a community engagement event held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development.</p> <p>As detailed in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p> <p>It further notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road design.</p> <p>Consultation in Brookstead: ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead.</p> <p>Consultation in Pampas: ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing.</p> <p>Subsequent to the submission of the draft EIS, ARTC has implemented a program of quarterly community surveys to gather feedback on communications and interactions. An addition survey Living in Place was conducted in 2022 to inform the Social Impact Assessment.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.3</p> <p>Section 6.6</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 6.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
204	204.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsealable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	The EIS is required to assess the Project alignment as detailed throughout the revised draft EIS Chapter 5: Project Description.	Chapter 5: Project Description
204	204.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsealable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	The EIS is required to assess the Project alignment as detailed throughout the revised draft EIS Chapter 5: Project Description.	Chapter 5: Project Description
204	204.0005	Private - Brookstead	Stakeholder engagement		ARTC have failed to engage with residents and inform them of the impacts of the train noise and vibration.	<p>The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.</p>	<p>Stakeholder engagement regarding noise and vibration is ongoing as ARTC continues to progress noise modelling, noise impact assessments and baseline monitoring as part of developing the revised draft EIS and design for the Project.</p> <p>In October 2019, ARTC held targeted engagement across the alignment on the draft reference design which included noise impacts of the Project. The engagement campaign delivered nine community information sessions attended by 193 stakeholders, individualised letters and phone calls to all identified sensitive receptors, a factsheet and an eNews story. The Project has also presented at both the IDDCCC and SDDCCCs regarding noise, responding to all questions from the floor.</p> <p>Updated noise modelling has been undertaken as part of the updates for the revised draft EIS. This updated modelling will be supported by an engagement plan delivered in mid-2023 and will include the delivery of updated noise modelling information to all sensitive receptors, interactive online noise map (hosted on ARTC Inland Rail's website) which allows landowners surrounding the Project to understand potential noise impact levels, one on one meetings with sensitive receptors as required.</p> <p>This engagement will enable stakeholders to better understand the noise levels at their specific location, and ask questions about mitigation measures which will be further developed during detailed design.</p> <p>A summary of these tools is detailed in Appendix E: Consultation Report, Section 5.6. ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.6</p>
205	205.0000	205.0008	Private - Brookstead	Noise and Vibration	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that: Noncompliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As well as all of prior interactions with the proponent, the detail is scant and is 'not yet available'. If this project is to proceed, there must be a night time curfew put in place to protect communities from sleep disturbance and also to mitigate risk around house and land devaluation and property development.</p>	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions is provided in the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Appendix W: Noise and Vibration Assessment – Railway Operations.</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4.4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration, Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 16 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 16</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
205	205.0001	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4 and 6.2.5. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.1.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. <p>ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Border to Gowrie design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 7</p>
205	205.0002	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kaganu Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
205	205.0005	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and, as such, the draft EIS is incomplete according to TOR Condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
205	205.0006	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors: Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. If this project is to proceed, there must be a night time curfew put in place to protect communities from sleep disturbance and also to mitigate risk around house and land devaluation and property development.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead include railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>
206	206.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals from alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakley to Pittsworth Road and Lochaber Road will mean that Operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4. The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>ARTC acknowledge the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the Construction Works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the Detailed Design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment – Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safeties for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. See Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment – Railway Operations, Section 11. It is identified that any receivers with 12 m from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the Detailed Design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various private health networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 13</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
206	206.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsealable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	The EIS is required to assess the Project alignment as detailed throughout the revised draft EIS Chapter 5: Project Description.	Chapter 5: Project Description
206	206.0005	Private - Brookstead	Stakeholder engagement		ARTC have failed to engage with residents and inform them of the impacts of the train noise and vibration	The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Border to Gowrie alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in revised draft EIS in Section 16.4 of Chapter 16: Noise and Vibration, Existing Noise Environment and in Section 5 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Existing Noise Environment.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.4 of Chapter 16: Noise and Vibration, Existing Environment and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations, Existing Environment.</p> <p>The revised draft EIS has identified the potential for sensitive receptors to be impacted from both construction and operational noise and vibration impacts in exceedance of the nominated criteria. During detailed design, further detailed engineering, and acoustic assessments, including noise modelling, will be undertaken and will consider sensitive receptors in the vicinity of the Project. Specific and reasonable mitigation measures will be developed and implemented following this detailed assessment.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 16: Noise and Vibration Sections 16.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5 Appendix W: Noise and Vibration Assessment - Railway Operations Section 5
207	207.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals from alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakey to Pittsworth Road and Lochaber Road will mean that Operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4. The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>ARTC acknowledge the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the Construction Works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the Detailed Design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment – Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and Construction Works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's Interim Guideline Operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. See Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment – Railway Operations, Section 11. It is identified that any receivers with 12 m from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the Detailed Design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various private health networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.9.3 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Chapter 24: Draft Outline Environmental Management Plan Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17
207	207.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsealable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	The EIS is required to assess the Project alignment as detailed throughout the revised draft EIS Chapter 5: Project Description.	Chapter 5: Project Description
207	207.0005	Private - Brookstead	Stakeholder engagement		ARTC have failed to engage with residents and inform them of the impacts of the train noise and vibration.	The true noise and vibration impact on the community cannot be determined until all details of the project footprint have been completed. ARTC provide scant details that fail to identify the true impact this project will have on urban areas like Pittsworth.	<p>Stakeholder engagement regarding noise and vibration is ongoing as ARTC continues to progress noise modelling, noise impact assessments and baseline monitoring as part of developing the revised draft EIS and design for the Project.</p> <p>In October 2019, ARTC held targeted engagement across the alignment on the draft reference design which included noise impacts of the Project. The engagement campaign delivered nine community information sessions attended by 193 stakeholders, individualised letters and phone calls to all identified sensitive receptors, a factsheet and an ENews story. The Project has also presented at both the IDCCC and SDDCCs regarding noise, responding to all questions from the floor.</p> <p>Updated noise modelling has been undertaken as part of the updates for the revised draft EIS. This updated modelling will be supported by an engagement plan delivered in mid-2023 and will include the delivery of updated noise modelling information to all sensitive receptors, interactive online noise map (hosted on ARTC Inland Rail's website) which allows landowners surrounding the Project to understand potential noise impact levels, and one-on-one meetings with sensitive receptors as required.</p> <p>This engagement will enable stakeholders to better understand the noise levels at their specific location, and ask questions about mitigation measures which will be further developed during detailed design.</p> <p>A summary of these tools is detailed in Appendix E: Consultation Report, Section 5.6. As noted in Appendix T1: Hydrology and Flooding, ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	Appendix E: Consultation Report Section 5.6
208	208.0001	Private - Brookstead	Noise and Vibration	Operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both Construction Works and Operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the Detailed Design commitments. ARTC and/or the construction Contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g., supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g., façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g., off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the Construction Works stage. The construction Contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the Detailed Design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g., dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the Detailed Design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Section 17.6 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 11 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
208	208.0004	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landowners. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'Detailed Design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4 and 6.2.5. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.1.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Border to Gowrie design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTRM and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2 Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Section 5.5 Section 6 Section 6.4</p>
209	209.0001	Private - Brookstead	Flooding - Condamine River		The submitter's property starts 300 m from the existing rail line and extend further east. The submitter highlights the huge potential for a river in a floodplain to change its course as a result of minor changes to the actual watercourse as well as the likely development of new gullies caused by increasing water velocity behind, around and through culverts. The draft EIS does not acknowledge that the flooding impacts are likely to be irreversible. Therefore the EIS is not acceptable and additional instances of this are highlighted and discussed in the following submission.	nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.8.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities).</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Figure 14.20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3</p>
209	209.0002	Private - Brookstead	Surface Water		The issues of flood modelling and hydrology have not been fully resolved and validated. The draft EIS is incomplete as it does not consider the ongoing investigation by the Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail project by the Australian Rail Track Corporation and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021. Also, the EIS should take into account the assessment of the Independent Panel of Experts for Flood Studies, which states it expected to complete their work by the end of 2021.	nil.	<p>Chapter 13: Surface Water, Section 13.26 states that the revised reference design will minimise the changes to flow and potential impact to downstream surface water users. A flooding and hydrology study has been undertaken detailing potential impacts to flow. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, changes to base-flow and low-flow conditions are not expected (refer Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2) and will not significantly impede current surface water resource use.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Chapter 13: Surface Water Section 13.26 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.6 Section 8.6 Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
209	209.0003	Private - Brookstead	Surface Water	Modelling	The flood model is calibrated on only two flood events (1991 and 2010) and we question whether this is sufficient data to build a model for the complex nature of the Condamine floodplain. Additionally, neither of these flood events is a 1-in-100 frequency event so the requirement to design for a 1%AEP flood and assess the impacts of more extreme events is questionable, and lacking precision under these limited data inputs. Also, local flood records provided by landowners have been ignored in the calibration process. Historic flood records provided by local landowners have been used from 47 stations (plus 3 gauging stations) as a validation of the flood model. These records show a bias in under-prediction of modelled flood heights, as 37 out of 46 historic flood records(excluding 4 outliers) are under-predicted by the flood model, whereas only 9 are over predicted. Additionally, there appears to be spatial bias and greater errors in calibration for historic events around Pampas.	nil.	<p>Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data and are utilised to determine the robustness of the flood model to predict flood impacts for design events. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>2010 floodmark validation and 2013/2021 flood photo verification has been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Updated floodmark validation results can be found in Table 7.31 of Section 7.3.7 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.2 Section 7.2.3 Section 7.3.7 Section 7.6 Table 7.31</p>
209	209.0004	Private - Brookstead	Flooding - Condamine River	Modelling	ARTC and FFJV representatives have been asked for but have failed to provide estimated errors or measures of uncertainty in the predicted flood heights at key infrastructure locations for local landowners. This clearly violates Mandatory TOR 6.3 to include estimates of uncertainty in the flood model.	nil.	<p>Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data and are utilised to determine the robustness of the flood model to predict flood impacts for design events. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>2010 floodmark validation and 2013/2021 flood photo verification has been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Updated floodmark validation results can be found in Table 7.31 of Section 7.3.7 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in Detailed Design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.2 Section 7.2.3 Section 7.3.7 Section 7.6 Table 7.31</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
209	209.0005	Private - Brookstead	Flooding	Modelling	The impact of climate change has not been considered in predicted flood heights for locally impacted buildings and infrastructure. It is only presented briefly in Appendix Q2 to indicate a flood height increase of 0.5m with no impact on the rail design. This violates Mandatory TOR 6.2 to consider unknown and unpredictable future events, and also TOR 11.54 as it does not allow for design modifications and recognise flooding impacts on surrounding agricultural practices and infrastructure in these future increasingly likely events. The current rail design on the Condamine floodplain has been devised against a flawed flood model, and the resulting inundation maps showing the impact of the rail design have been suggested in the draft EIS as acceptable. The submitter claims that the demonstrated changes in the inundation maps against the rail design are unacceptable for our farming systems and do not meet best-practice agricultural management on the floodplain.	nil.	Climate Change sensitivities have been described in Section 14.7.7 of the EIS Chapter 14: Flooding and Geomorphology and the 'Sensitivity Analysis' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.7.7 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 5-17
209	209.0006	Private - Brookstead	Stakeholder engagement		Submitter lacking trust in the information provided during stakeholder engagement. The Southern Darling Downs Community Consultative Committee (SDCCC) engaged Water Solutions, through Dr John Macintosh, to provide an independent expert review of the FFJV flood model. The results from this review were presented to the community at a meeting at the Brookstead Hall on 9 April, 2019. This presentation was the first general meeting sharing the levels of under-prediction bias from the flood model, and caused concern about the errors against known data, showing the accuracy range that the submitter was dealing with in flood model formulation. Additional information was collected and questions were submitted to Dr Macintosh on 2 June 2019. He replied after 3 months stating that he was unable to provide the detail we requested around errors in predicted flood heights from the model. His response to the concerns raised was that recorded flood records (that is, those provided by the landowners) could be inaccurate for many reasons.	nil.	ARTC provided technical information to Dr Macintosh for his independent review but was otherwise not involved in this process and is thus unable to comment. ARTC notes that it also cooperated and shared technical information with the Independent Flood Panel and a flooding expert appointed by local landowners.	Appendix E: Consultation Report Section 5.3
209	209.0007	Private - Brookstead	Stakeholder engagement		Submitter states that misinformation was given to the Senate Estimates Committee by ARTC regarding details of flood modelling. The submitter also confirms the frustration felt by residents on the floodplain, due to the dismissive, disregarding and arrogant behaviour of ARTC representatives. This misinformation supplied to the Senate committee by senior employees of ARTC clearly demonstrates the lack of consultation within ARTC from the ground up, as well as its dismissal of documentary flood evidence and concerns about the flood model conveyed to them by affected landowners.	nil.	ARTC appreciates there was some misunderstanding at this point in time. Since the submission, additional engagement has been undertaken to inform the Condamine River Floodplain crossing design, and Appendix E: Consultation Report, Section 5.3 details this engagement. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.	Appendix E: Consultation Report Section 5.3
209	209.0008	Private - Brookstead	Flooding - Condamine River	Modelling	The flood heights for the 1 in 100 year event predicted from the flood model are actually lower than the recorded flood heights from the 2010 flood (which is less than a 1 in 100 flood; being somewhere between a 1 in 20 and 1 in 50 flood). This contradiction clearly indicates that there is a gross under-prediction of modelled flood heights for a 1 in 100 year event, and downward bias in the flood model.	nil.	The AEP estimate of a flood depends on the at-site historical flood record, which can vary significantly in both space and time. The 2010 event is estimated to be around 2.6% AEP at Warwick about 50 km upstream of the hydraulic model domain (3rd largest event behind 1976 and 2011) and at 0.8% AEP at Cecil Weir at the downstream end of the hydraulic model (flood of record) (Section 7 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). From a hydraulic modelling perspective, the 2010 event is considered a rarer than 1% AEP event as it produced slightly higher peak flows than the 1% AEP design event. The main 2010 event was also preceded by multiple secondary rainfall bursts resulting in highly saturated catchment conditions, whereas the initial and continuing losses for the design 1% AEP event were derived from statistical observations rather than from a single event. These differences in storm volume and antecedent conditions further contribute to water level variations on the floodplain. The flood modelling conducted for the Project has also been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report Section 1.4 Section 7
209	209.0009	Private - Brookstead	Flooding - Condamine River	Baseline/background sampling	From the beginning of this project, June 2016, ARTC and FFJV have referred to the Condamine Floodplain as being 12.5 km wide, ending at the west bank of Grassree Creek, and the first inundation maps presented to us by ARTC and FFJV showed this extent. The Toowoomba Regional Council (TRC) also defined the floodplain as being 12.5 km wide. Local landowners have always insisted that floodwaters extend across a width of (at least) 18 km, including the water from Back Creek in Millmeran to past the North Branch of the Condamine, near Brookstead, and we have photographs from the 2010 flood event as evidence of water depths up to 0.7m in a connected water flow outside of the 12.5 km extent of the floodplain. Landowners presented photographic evidence showing the 18 km extent of the floodplain in the 2010 flood.	nil.	In order to clarify the statement made by ARTC, it should be noted that the width of the Border to Gowrie Condamine Floodplain mentioned as 12.5 km specifically refers to the portion of the rail alignment that traverses through the 1% Annual Exceedance Probability (AEP) flood zone area. However, it is important to recognize that the actual width of the floodplain varies and extends beyond the stated 12.5 km, as observed along the Gore Highway as an example. When discussing the precise width of the Condamine Floodplain, it is essential to establish a reference frame for measurement. To validate and verify ARTC's statement, this can be done using the interactive mapping platform Plan Engage, which offers mapping and comprehensive data on the floodplain's dimensions. All of the catchments along the Inland Rail route have been modelled and assessed as part of the revised draft EIS. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. ARTC has actioned the Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix E: Consultation Report Appendix T1: Flooding and Hydrology Technical Report - Volume 1 Section 7.6 Section 8.6
209	209.0010	Private - Brookstead	Stakeholder engagement		As stakeholder engagement by ARTC has failed in the past, the submitter is extremely concerned that the EIS document states that there will be further model refinement and consultation with landowners outside of the EIS process. It has been his past experience that ARTC have ignored community concerns and discounted their records and local knowledge. For this reason, ARTC have no credibility or trust within the Condamine floodplain community, as they have not engaged with stakeholders in a consultative and collaborative manner in the past.	1. The draft EIS document should be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. 2. Any further development and consultation regarding the flood impacts be undertaken by an independent panel and not by ARTC or FFJV, as the engineers for ARTC.	The flood modelling conducted for the Project was reviewed by the Independent International Expert Panel for Flood Studies, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment. As part of additional assessment and studies conducted for the revised draft EIS, ARTC assessed all local catchments against the new Flood Impact Objectives (FIOs), which determine the acceptable parameters within which the Project can change or increase the existing flood conditions, including afflux, time of inundation, velocity, hazard and flow directions. In October 2022, ARTC undertook consultation with all landowners that were shown to have the highest exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property. As per ARTC's flood model engagement framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Property specific impacts were identified during the consultation sessions in 2022, with the potentially impacted landowners (e.g. access, property specific observations and constraints) and the results recorded for incorporation when mitigations are applied in detailed design along with FIO application.	Appendix E: Consultation Report Section 5.3
209	209.0011	Private - Brookstead	Flooding - Condamine River		Concerned about rail design plan and EIS claims - The design proposes to raise an embankment up to 3 m high across the length of the floodplain, so water will no longer be able to over-top this structure during a flood. The design also proposes to reduce the free-flowing extent of water over the top of the current embankment (for 18 km), to approximately 6 km of bridging and 1.5 km of culverts. This will concentrate the flow of water under this new IR structure and reduce the free-flowing cross Section of the flood plain by more than one-half, or approximately 7.5 km. This restriction will impact on current water flows and directly contravene TOR 11.64, as there have been insufficient design considerations to minimise impact.	nil.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the Terms of Reference (ToR) and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised reference design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of the revised draft EIS (1% AEP change in peak velocities). The flood modelling conducted for the Project has also been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Table 14-4 Figure 14-2-a-e
209	209.0012	Private - Brookstead	Flooding - Condamine River	Increase in peak water levels	Unacceptable increase in flood heights due to the proposed rail design - The submitter disagrees with the assumptions made in Chapter 12 (p 12-166) of the draft EIS that the change in peak water levels due to design are acceptable. A series of culverts (and bridge pylons) will increase the flow volumes and water velocity when water is channelled under and around these structures, increasing the erosion risk and causing long-term and irreversible damage to our farming system and soils (see TOR 6.2).	nil.	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office. The flood modelling conducted for the Project has also been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.5.3
209	209.0013	Private - Brookstead	Flooding - Condamine River	Erosion	Increased risk of soil erosion with unrepairable and irreversible impacts (photographic evidence given)Local landowners have tried to collaborate with ARTC and FFJV on numerous occasions to discuss the consequences of erosion both adjacent to and downstream from the proposed rail design, due to increased velocity by impeding water flow across an 18 km floodplain to a cross-sectional area of 7.5 km of bridging and culverts, under an elevated wall of up to 3 m high.	The submitter requests for an extension of bridge length across the Condamine floodplain. The bridging length be extended to join the South Bridge with the main Condamine bridge. The submitter also states that this bridge must have unimpeded flow extend from the Millmeran-Leyburn Road to the Condamine River, so that water can flow freely under the rail construction, rather than being dammed by a 3 m high embankment and restricted to flow under culverts in some sections.	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised reference design (Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design. Scour protection requirements are reported in Appendix B of Appendix T1: Flooding & Hydrology Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Section 22.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).	Chapter 14: Flooding and Geomorphology Figure 14.21c Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 7.5 Section 22.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
209	209.0014	Private - Brookstead	Flooding - Condamine River	Increase in peak water levels	The submitter notes that the flood impact objectives listed in draft EIS in Table 12.8 (Chapter 12, p1218) allow for changes in peak height of up to 200 mm on agricultural land, with up to 400 mm in localised areas. The submitter finds this not acceptable for an increase of 200 to 400 mm over agricultural cropping land due to rail design. In the most recent flood event in March 2021, there were large areas of sorghum and cotton crops on property adjacent to the rail line that were inundated by flood water. An increase in flood height of 300 mm, which is allowable under the design objectives, would have resulted in the total loss of large proportions of this crop along the rail alignment, where such losses equate to an estimated value of over\$3 m.	nil.	Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for land, with further FIO requirements that relate to land usage, impacted area, etc. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.5.1 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5-17
209	209.0015	Private - Brookstead	Flooding - Condamine River		The work of the Independent Panel of Experts for Flood Studies is expected to be completed by the end of 2021	1. CG invites ARTC to withdraw the EIS. 2. The CG should wait for the flood panel report before making determination on draft EIS. 3. CG should invite stakeholders' comments on panel findings.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC have actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.6
210	210.0001	Private	General project opinion - positive		The Goondiwindi Chamber of Commerce (GCC) represents the businesses of Goondiwindi and Ingleswood and views the Inland Rail project as potentially providing major benefits to the towns and region. The benefits GCC recognises from the Inland Rail project are in two parts. Firstly, a financial benefit from the construction and then a potential long-term opportunity to enable the Goondiwindi region to grow and develop new economic opportunities. Secondly long term major benefits to towns and region.	The submitter expects maximum involvement of local people and businesses in the construction and future operation of the rail line. They want minimal disruption to local businesses and lifestyle, and if disruption does occur fair compensation must be made.	ARTC acknowledge the Goondiwindi Chamber Of Commerce's support of the Project and the benefits for the Goondiwindi region. Section 8 of Appendix X: Social Impact Assessment Technical Report provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. As noted in Appendix X: Social Impact Assessment Technical Report (Section 7.5.3) ARTC's Australian Industry Participation Plan and Sustainable Procurement Policy have a key focus on providing local and Indigenous businesses and social enterprises with full, fair and reasonable opportunity to participate in the supply of goods and services to Inland Rail. The Project will underpin its planning with the minimum participation targets set by related Commonwealth and Queensland policy, and will drive outcomes toward aspirational or incentivised targets with Contractors to exceed these minimum benchmarks. The Project's contractual negotiations will remain commercial in confidence. Inland Rail's tender assessment criteria includes local and first nations participation as a key element of all construction tender assessments. There is no relevant target for local procurement from within an area such as the SIA study area. ARTC's planning will be guided by an aspirational target of 15 per cent of the value of Project procurement to be spent with businesses that are located within the SIA study area. Appendix X: Social Impact Assessment Technical Report Section 7.5.2 notes that when the Project's Detailed Design is confirmed, ARTC will consult with tourism-related businesses located within 10 km of the Project and will develop a strategy, working with local Chambers of Commerce, tourist information centres and the Goondiwindi and Toowoomba Regional Councils, to ensure that any potential impacts on tourism visitation are mitigated, which could include support for tourism marketing campaigns targeting potentially impacted communities. ARTC are committed to continued consultation with the community, local businesses and key stakeholders through detailed design and construction works to minimise impacts and develop mitigation measures as required.	Appendix X: Social Impact Assessment Section 7.5.2 Section 7.5.3 Section 8
210	210.0002	Private	Flooding		ARTC state in their EIS that Inland Rail will only affect any future flood levels in Goondiwindi by no more than 10 mm. The 2011 flood event required the town levy bank to be sand-bagged in places so there was absolutely no margin for error, but the volume of water that went past Goondiwindi in 2011 was less than what was recorded in both 1976 and 1996. So, the third biggest volume of water in the last 45 years nearly flooded the town. GCC does not have the technological skills and resources to challenge or endorse the ARTC hydrological modelling but we are concerned that the third biggest volume of water in 45 years could threaten to inundate the town. The independent panel's draft report identifies five major catchments containing thirteen regional catchments - the Macintyre River is the only one of these regional catchments that the panel does not review as ARTC are presently revising their model. This causes concern for the submitter as they were looking forward to suggested amendments of the proposal from the experts.	nil.	The revised draft EIS includes additional hydrologic and hydraulic modelling work that was conducted as part of the North Star to NSW/QLD border Project at the request of NSW DPIE. The Macintyre River sections of the revised draft EIS has been updated, refer to Section 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 17
210	210.0004	Private	Social Impact Assessment	Workforce and employment	The submitter requests that as often as possible local people are employed for the program, and if it is found that locals don't have sufficient skills, training be made available to them.	Where labour camps need to be established, they should be done in such a way as to fit in with the community rather than be a totally separate enclave. They should obviously source their supplies from the local region.	The employment of local people is a key goal for the Project so the benefits of wages and skills development will extend to local and non-local residents. ARTC has established the Inland Rail Skills Academy (revised draft EIS Appendix X: Social Impact Assessment, Section 8.3.2) to increase the skills and capacity of the local workforce to participate in construction employment. The Project's management of accommodation facilities is addressed at Appendix X: Social Impact Assessment, Section 8.4 and will include: <ul style="list-style-type: none"> Management of workforce behaviour to avoid impacts on local community values such as family friendly communities and courteous driving behaviour Noise, air quality and odour management with respect to the amenity of surrounding properties Enabling local businesses to tender for supply of good and/or services to the non-resident workforce accommodation facilities. Employment of local residents in non-resident workforce accommodation facilities. 	Appendix X: Social Impact Assessment Section 8.3.2 Section 8.4
211	211.0001	Private	Surface Water	Modelling	The submitter raises the issue about the Condamine River Flood Plain between Millmerran and Brookstead. He highlights that the results and accuracy of the flood modelling has been widely challenged by local farmers. Also, the potential for an embankment with culverts to cause widespread gullying of the Condamine floodplain has been ignored both in the EIS and in its TOR. There is a long history of gully erosion in this area on cracking clay soil floodplains invariably caused by concentration of overland flows and often associated with culverts. Flow through culverts under flood conditions is concentrated and its energy gradient is higher than the slope of the land, as water is ponded on the upstream side. The end result is that flow through a culvert has increased velocity and flow tractive force, and has greater potential to directly detach and remove soil.	nil.	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flow levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14-20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC have considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8.1 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Figure 14-20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3
211	211.0002	Private	Flooding - Condamine River		The submitter outlines that adequate risk considerations have not been taken into consideration by the proponent. 1. The EIS contains no assessment of geomorphic risk. 2. There is no plan B. If, as widely anticipated by highly experienced local professionals, the current design causes extensive erosion of high value cropping land, there is no possibility of changing the design to reduce that risk. 3. Effectively, once constructed, there will be zero opportunity to re-build sections of the line, and the farming community will be left with a festering problem that may well also compromise the functionality of rail line itself.	nil.	A Geomorphology assessment has been carried out in accordance with the requirements outlined in RFI 312. The outcomes of the Geomorphology assessment are reported in Appendix H: Geomorphology Technical Report and Chapter 14: Flooding and Geomorphology of the revised draft EIS. Scour protection requirements for culverts during the revised reference design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk (Section 22.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised reference design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design (refer to Section 5.1 of Appendix H: Geomorphology Assessment). Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Geomorphology Appendix H: Geomorphology Assessment Section 5.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 22.4 Appendix B
211	211.0003	Private	Flooding - Condamine River		The EIS (page 12-170) notes that scour protection has been designed in accordance with the Guide to Road Design Part 5B: Drainage (Austroads, 2013b). However, that document specifically considers established flow paths. It does not consider stabilisation of structures on a vertosol floodplain with no established gullies.	nil.	Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel (the updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during Detailed Design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Section 22.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 22.4 Appendix B

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
211	211.0004	Private	Flooding - Condamine River		The submitter opposes culverts in the Condamine floodplain.	The preferred and most reliable option for the inland rail crossing of the entire Condamine floodplain is a viaduct. That would cause no diversion or concentration of flood flows, and has quite limited potential to cause increases in flooding, diversion of flows, or erosion damage to cropping land. It is the most reliable option to address the floodplain crossing. If largely due to cost concerns, a design incorporating culverts is adopted, then at the very minimum: 1. Box culverts should be used and not pipe culverts. 2. A maximum outlet velocity of 0.5 m/s should be set for flow at the point where it exits the sealed or protected surface at the downstream end of culvert. 3. Given the high probability that culverts will cause severe erosion damage to adjoining agricultural lands, a requirement should be included in the conditions for the project that such damage will be repaired to a suitable and acceptable standard at the expense of the authority responsible for the management and maintenance of the rail line	The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14-20a-e of the revised draft EIS Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities). Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIO's, as endorsed by the Independent International Expert Flood Panel (the updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk. An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design. A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised reference design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised reference design. Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. Scour and erosion protection measures will be reviewed and confirmed during detailed design, when detailed site mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available (Section 22.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1).	Chapter 14: Flooding and Geomorphology Figure 14-20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 22.4 Appendix B
211	211.0005	Private	Land Use and Tenure	Severance of agricultural land	Considering solely a 75 metre wide alignment, the proposed rail line would alienate some 217 hectares of high-value cropping land across this 29 kilometre stretch. However, construction of the rail line will disrupt farming operations on both sides of the rail line (enormously in some cases) adding to production costs and/or losses, causing effective loss of significantly more than 217 ha of high-value land. There is also the potential for gullying to impact on and damage land adjoining a proportion of that 29 km corridor.	The preferred and lowest risk option for the inland rail crossing of the Condamine floodplain is a viaduct.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of good quality agricultural land that cannot be avoided. Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2). Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. As described in Section 2.8 and Section 2.9 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. Where changes to surface water and hydrology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 13: Surface Water). The FIOs applied to assess the Project impacts are presented in Chapter 14: Flooding and Geomorphology, Section 14.6.3, Table 14-4. The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land. Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landowners. This is also further discussed in the revised draft EIS, Chapter 8: Land Use and Tenure, Section 8.5.1.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46 Chapter 13: Surface Water Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1
211	211.0006	Private	Project alignment		Problems with the proposed route The route selection process did not consider the erosion risks associated with crossing the Condamine floodplain. Consequently, it did not consider the potential additional construction costs that may be required to deliver an acceptable (non-erosive) design. (Additional length of viaduct has already been added, and stakeholders are calling for a much greater distance of viaduct, which would greatly increase construction costs.) Nor did the selection process (and the EIS) consider the potential high management costs that may be required to address continuing issues with instability of cross-corridor drainage on such erodible soils. It also did not consider the impact on the local koala population as a result of the proposed route. Finally there are quite significant construction challenges associated with placement of a rail line on the expanse of highly reactive (swelling and shrinking) deep clay soils when crossing the floodplain from Millmerran to Yarranlea.	To overcome the issue of clay soil and construction challenges it is likely that construction will need to either:1. Excavate a significant (possibly in the order of 1 metre) depth of reactive clay and replace it with a non-reactive foundation material; or2. Treat the foundation soil (probably to a depth close to 1 metre) with lime (quicklime or hydrated lime) to stabilise the soil and render it non-reactive. Lime application rates in the order of 2 - 6% by weight are commonly reported. The submitter also mentions that making these changes could come at a significant cost increase.	The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ the outcomes of the multi-criteria analysis (MCA). Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland RAILS program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: - environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. Chapter 14: Flooding and Geomorphology, Section 14.9.1 states that stakeholder concerns regarding the dispersive nature of soils in floodplains were addressed in the revised reference design by incorporating scour and erosion protection measures into the revised reference design in areas determined to be at risk, such as around culvert headwalls, drainage discharge pathways and bridge abutments. A preliminary erosive threshold velocity assessment was undertaken to inform the scour and erosion protection strategy (Section 14.6.5). Section 14.9.1 describes the proposed additional mitigation measures during future Project stages.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Chapter 14: Flooding and Geomorphology Section 14.6.5 Section 14.9.1 Appendix E: Consultation Report
212	212.0001	Private	Stakeholder engagement		Despite direct impact of the proposed inland rail on Vary Agricultural Services (submitter), they were not engaged to participate in the consultation processes.	1. Not approve the draft EIS 2. Ask ARTC to consult Vary Agricultural Services. Release additional information from ARTC in a revised EIS and give the submitter the right to provide future comment.	Since this submission, Inland Rail have met with Vary Agricultural Services to better understand concerns held regarding potential impacts to their business due to noise, vibration and dust. A commitment has been made to assess potential vibration impacts on the business's sensitive weigh bridge once plans for the weigh bridge are provided. Inland Rail have provided ongoing assistance in trying to locate weigh bridge plans. Engagement with this submitter is ongoing.	Appendix E: Consultation Report
212	212.0002	Private	Hazard and Risk		The Vary Agricultural Services office building and the chemical shed are not on the map. The office was built in 2015 and chemical shed built in 2017. These structures should be on the map which shows the Inland Rail is using outdated maps. Subsequently sensitive receptors for the office are not noted and impact to the business are not acknowledged. The laydown area and cement batching plant for Inland Rail are located directly next to the submitter's office premise. This close proximity of cement batching plant presents contamination risks to food products and fertiliser products. It will be hazardous for the consumers' health given this risk.	nil.	Section 21.2 of Chapter 21: Hazard and Risk outlines the commitment of ARTC's Safety Policy which provides the basis for effective management of employee, contractor and public health for the Project. Section 8.6.3 of Chapter 8: Land Use and Tenure outlines the commitment of ARTC to continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This has included the identification of: ▶ Landowners' needs regarding access to the properties and the closure of private roads ▶ Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority ▶ The potential for changes to groundwater access.	Appendix E: Consultation Report Section 4.6 Chapter 8: Land Use and Tenure Section 8.6.3
212	212.0003	Private	Traffic and Transport	Operational traffic	The design element of the road crossing of the Inland Rail is difficult for trucks. Trucks stopped at a rail crossing can't easily go from a standstill to an immediate incline over elevated rail. This will be dangerous for entry roads that go over inland rail and turn onto the Gore Highway. The case in Brookstead is an example where trucks will go from a standstill over inland rail and then directly enter Gore Highway where traffic will be travelling at speed. Safety for trucks and trains are raised by the submitter.	nil.	Appendix AA: Traffic Impact Assessment Section 1.1.2 details the legislation, policy and guidelines used within the assessment. The list includes Austroads Guide to Road Design and Guide to Traffic Management. Road design standards have been developed to achieve service level objectives of the specific road. This means that the updated road geometry will accommodate a B-double vehicle (or as agreed with road manager) with corresponding compliant grades. ARTC notes submitters concerns around acceleration of trucks from standing start and this will be provided for within the use of design standards. The road safety assessment presented within Appendix AA: Traffic Impact Assessment has been undertaken as per the framework laid out in GTIA Part C Section 9. This framework relies on the principle that a road's safety is not significantly worsened as a result of the Project and that any pre-existing or Project -introduced unacceptable safety risk is addressed. The GTIA acknowledges that safety is not readily quantifiable and may require scoring based on expert opinion on the changes to likelihood and/or consequence of a risk being realised. This road safety impact assessment has the following aims in accordance with the Project's TIA - Road Safety Methodology Technical Memo which was agreed with DTMR in November 2022 (Appendix BS). A safety risk assessment based on existing crash history has been undertaken along the Project construction traffic routes and road-rail interface locations for the following scenarios: ▶ 'Without' Project ▶ 'With' Project ▶ 'With' Project and with mitigation measures (required only if the score in the Project situation is higher than in the without Project situation, or if the without Project score is in the 'high' category). Appendix AA: Traffic Impact Assessment Section 5.2.2 provides whole of Project mitigation measures suggested for the Detailed Design and Construction Works stages, which include items such as construction traffic management plans, road use management plans, and non-infrastructure based mitigation measures. Appendix AA: Traffic Impact Assessment Section 5.2 provides a summary of the intersections, road links and road-rail interfaces requiring mitigation as per the GTIA Part C Section 9 framework. The detailed road safety assessments are contained in Appendix AN, AO AP and AQ of Appendix AA: Traffic Impact Assessment for intersections, road links, road-rail interfaces (construction), and road-rail interfaces (operation) respectively. Section 5.9 of Appendix AA: Traffic Impact Assessment details level crossing impact assessment and mitigation - operation, which includes assessment of vehicle wait times. Table 5.112 summarises the road-rail interface mitigation measures.	Appendix AA: Traffic Impact Assessment Section 1.1.2 Section 5.2 Section 5.9 Table 5.112 Appendix AN Appendix AO Appendix AP Appendix AQ Appendix BS Appendix E: Consultation Report Section 5.3
212	212.0004	Private	Traffic and Transport	Operational traffic	Diversion of traffic through Brookstead while working on the overpass on eastern end of Brookstead, and noise and risk problems from increased traffic. It raises the possibility of vehicles and trucks interacting on the highway and local roads. It poses a huge road safety risk for motorists. This means that access to the submitter's Vary Agricultural Business will be compromised. As a truck freighting business, they generate multiple trips both to and from our business and the Inland Rail will be a generator of additional trucking movements throughout the construction stage. They highlight the lack of consultation with them in this matter.	nil.	In Appendix AA: Traffic Impact Assessment Section 5.9.4 a detailed assessment has been undertaken at each of these diversion locations, to summarise the: ▶ Existing situation, including the road network and active and public transport provisions ▶ Required site distance length ▶ Traffic information and rerouting assumptions ▶ Capacity (SIDRA) and turn warrants assessment without and with Project ▶ Recommendations. The Ware Street diversion is an exception to above, as this diversion location has had a separate traffic impact assessment undertaken. As such, this has been summarised within this report, with the full assessment included in Appendix BM of Appendix AA: Traffic Impact Assessment.	Appendix AA: Traffic Impact Assessment Section 5.9.4 Appendix BM Appendix E: Consultation Report Section 5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
212	212.0005		Economics		The Draft EIS claimed that at the end of this process the project would produce 10-15 FTE jobs. This project is a major disruption to Brookstead with a poor full-time job return and no guarantee that these would be local jobs. There is a real concern for local businesses that this may mean displacement i.e. local firms may lose employees who would leave for construction jobs. Additionally, the submitter highlights that EIS draws on an economic report that is 6 years out of date, given the recent Covid border restrictions, drought and bushfire that have caused shortages in labour market.	A new and detailed economic study relevant to today's condition should be undertaken.	ARTC has recently updated the EIS economic modelling to reflect current labour market conditions. If labour market conditions at the national and state level remain in the recent range, the Project's Construction Works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. However, the economic assessment, in Section 6.4 of Appendix Y: Economic Impact Assessment, indicates that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment. ARTC will implement mitigation measures to ensure impacts to the availability of the local workforce is reduced. These include: <ul style="list-style-type: none"> Establishing the Inland Rail Skills Academy training and capacity building initiatives to increase the labour pool Monitoring labour draw in consultation with key stakeholders Corrective actions if required (e.g. updating recruitment or training strategies). 	Appendix Y: Economic Impact Assessment Section 6.4
212	212.0007	Private	Groundwater		Vary Agricultural Services do not have access to town water and have a bore in operation. The business cannot operate without water access. Any impact to the current bore in use on the premises, including loss of resource, pressure or quality, will impact the business operation.	nil.	Groundwater drawdown is predicted to be isolated and limited in extent around the vicinity of deep cuts (>10 m). Vary Agricultural Services is located 24.2 km from the nearest cut at chainage 176.35 km and therefore is not likely to be impacted by groundwater drawdown as a result of the Project (drawdown extent from cut is predicted to be 43 m. Further, impact to groundwater quality is not anticipated as a result of the Project (Chapter 15: Groundwater, Section 15.6.2). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset for comparative purposes to assess any potential deterioration of water quality resulting from the Project (Chapter 15: Groundwater, Section 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project (refer Chapter 15: Groundwater, Section 15.7.3 and Appendix U: Groundwater Technical Report, Section 8.3.1).	Chapter 15: Groundwater Section 15.4.4 Section 15.6.2 Section 15.7.3 Appendix U: Groundwater Technical Report Section 8.3.1
212	212.0008		Economics		The submitter, Vary Agricultural Services, outlines the following economic impacts for their business as a result of the Inland Rail. <ol style="list-style-type: none"> Loss of business from customers not being able to access the business with ease during construction of the project, as the Gore Highway at Brookstead will be closed for an extended period, forcing all highway traffic past the business entrance, making it hard to access and time delays and convenience may force customers to Millmerran or Pittsworth as they can also use other back tracks to avoid the construction areas. The ability to easily enter and exit the premises due to the significance increase in highway traffic on Ware Street will be made difficult, increasing time and costs. Economic loss in the event of a weed seed contamination Economic loss due to contamination of food product and fertiliser product from cement dust from the Inland Rail. Economic loss due to structural integrity of buildings compromised - sheds and office building. Significant economic loss in the event of weighbridge not operating, periodically or perpetually. Significant risk to the business if weights are not correct, loss of contracts and direct penalties. 	nil.	An assessment of the economic impacts per lot, business or commodity is not in the scope of the EIS as per Section 5.1 and 11.141 of the final Terms of Reference (ToR), as approved by the Qld Coordinator-General. The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. These outcomes have been summarised in the revised draft EIS. Regarding site access, ARTC note the concerns of Vary Agricultural Services Pty Ltd. However, the Gore Highway is not proposed to be closed for extended periods of time with traffic diverted through Brookstead. Instead, the Project is proposing to build a temporary side road that will maintain existing traffic flows on the Gore Highway during the construction period of the road over rail grade separation. ARTC does not anticipate any issues with customers or workers entering or exiting the Vary Agricultural Service facility. Refer to assessment in Section 20.5 and 20.6 of Chapter 20: Traffic, Transport and Access. Biosecurity matters and proposed mitigation measures (e.g. the spread of declared weed plant material and the potential for contaminating agricultural products), has been included in Chapter 21: Hazard and Risk in the revised draft EIS and in Chapter 24: Draft Outline Environmental Management Plan. Potential impacts from the operation of the temporary concrete batching facility located at the laydown area (B2G-LDN0152) and its potential for dust to contaminate food and agricultural products has been updated in the revised draft EIS. Refer to Chapter 12: Air Quality. Impacts are expected to be within statutory requirements given the proposed separation distances to the Vary Agricultural Services and the additional mitigation measures as outlined in Chapter 24: Draft Outline Environmental Management Plan. In relation to structural integrity of buildings and potential impacts to the operation of the weighbridge, the revised draft EIS has been updated to address potential noise and vibration impacts for the revised reference design. In terms of road traffic noise, the assessment has been undertaken in accordance with DTMR's Transport Noise Management Code of Practice, Volume 1—Road Traffic Noise (CoP Vol 1) (DTMR, 2013a). The CoP Vol 1 is a standard under the Transport Infrastructure Act 1994 (Qld) (TI Act) and provides guidance and instruction for assessing and managing the impact of road traffic noise, where the Project has delivered new and upgraded roads. Construction noise and vibration has been assessed in accordance with DTMR's Transport Noise Management Code of Practice: Volume 2—Construction Noise and Vibration (CoP Vol 2) (DTMR, 2016). The CoP Vol 2 is gazetted under the Environmental Protection Act 1994 and provides the framework for the assessment and management of construction noise and vibration on public amenity and safety. For vibration impacts associated with railway operations, ARTC has assessed noise and vibration impacts in accordance with DTMR's Interim Guideline—Operational Railway Noise and Vibration: Government Supported Transport Infrastructure (DTMR, 2019a). The Interim Guideline provides the framework for the assessment of noise and vibration emissions generated by the operation of rolling stock on railways and railway infrastructure. Refer to Chapter 16: Noise and Vibration and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic and Appendix W: Noise and Vibration Assessment – Railway Operations. Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys prior to assess the structural integrity of buildings along the alignment in accordance with the assessment criteria outlined in Table 16-39. The results from the noise and vibration modelling for both construction and operational activities, are not anticipated to cause structural impacts to adjacent site infrastructure or interfere with the current and future operations of the existing weighbridge at Vary Agricultural Services. As outlined in Section 17.6 of Chapter 17: Social, ARTC will continue to work with all directly impacted landowners to ensure the Project impacts are minimised or mitigated where possible.	Chapter 12: Air Quality Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Chapter 17: Social Section 17.6 Chapter 18: Economics Section 18.3 Section 18.9 Chapter 20: Traffic, Transport and Access Section 20.5 Section 20.6 Chapter 21: Hazard and Risk Chapter 24: Draft Outline Environmental Management Plan Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6.0 Section 7.0 Appendix W: Noise and Vibration Assessment – Railway Operations Section 9.0 Section 12.0 Table 16-39
212	212.0009	Private	Flora and Fauna	Contaminated land	The proximity of the laydown area and construction of the Inland Rail presents risk of weed contamination to Vary Agricultural Service products stored at the premises. It will impact customer contract obligations and business reputation. Contamination to fertiliser product which goes on farm is also of major concern, where unknown weed seed contamination will spread weeds to farms, costing in treatment and contamination potential of product and market rejection	No approval should be granted until this is fully assessed.	Chapter 24: Draft Outline Environmental Management Plan states a Biosecurity Management Plan will be developed as a component of the CEMP which will provide adequate management measures as a result of continued stakeholder engagement. The Biosecurity Management Plan will include weed surveillance and treatment during construction and rehabilitation activities such as: <ul style="list-style-type: none"> Vehicle and plant washdown requirements for fleet moving from low-risk areas to high-risk areas Weed certification requirements for vehicles, plant and materials arriving onto the construction site. 	Chapter 24: Draft Outline Environmental Management Plan
212	212.0010	Private	Land Resources		The Laydown area directly next to the business premises will present potential erosion and land use issues. The drainage associated with the new Inland Rail infrastructure along Ware Street will potentially create erosion problems for the road and adjoining land use.	nil.	During the Construction Works stage of the Project, the reference design will be in varying stages of construction, involve temporary works and be susceptible to flooding without specific mitigation measures being implemented. As such during this stage of works, additional mitigation measures may be required to minimise the impact to property, infrastructure, and Flood Sensitive Receptors. The following mitigation measures may be implemented during the Construction Works stage to mitigate Flood Impact Objective (FIO) exceedances as outlined in Section 14.9.1 of Chapter 14: Flooding and Geomorphology: <ul style="list-style-type: none"> Establishment of a baseline of the surrounding land and environment via detailed survey Completion of Flood Impact Assessments (including compliance with the FIOs), for any temporary works located within floodplains via a secondary approvals process, as required Implementation of Erosion and Sediment Control measures (as per the Construction Environmental Management Plan) to adequately manage scour and sedimentation on surrounding lands Stabilisation of disturbed land to reduce potential scour impact and minimise velocity increases Maintaining conveyance through existing drainage lines, where possible, to minimise diversion of flows to adjacent land. Scour and erosion protection measures (including the need for flow spreaders and/or dissipaters) will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the Detailed Design stage, when detailed site-specific data is available.	Chapter 14: Flooding and Geomorphology Section 14.9.1
212	212.0011	Private	Land Use and Tenure		Vary Agricultural Services business premises is for commercial purposes, it is located directly adjacent the Inland Rail alignment and within the project footprint. The Inland Rail infrastructure, construction and operation will create new and unacceptable impacts to the business and its operation. Vary Agricultural Services intend to maintain our right to claim compensation for impacts as a direct and perpetual result of the Inland Rail during construction and operation. For example, the laydown area and cement batching plant for Inland Rail construction stage are located directly next to the Vary Agricultural Services premises. The close proximity of the cement batching plant presents contamination risk to food products and fertiliser products from cement dust.	Compensation for direct and indirect economic loss to the submitter's business.	Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance. Refer to the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.6 for further details. Costs attributable to Compensation for disturbance caused by the resumption may include: <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land 	Chapter 8: Land Use and Tenure Section 8.6
212	212.0012		Economics		As a bulk grain and cotton carting company, Vary Agricultural Services, outlines the reasons why truck freight is favoured by consumers and not rail. The submitter outlines that product can be picked up directly from the farm at any and various locations and delivered direct to the end user and market. There is no double handling or loss of time. On the other hand, Queensland Rail does not run consistent and regular scheduled service. The Grain Depot may hold product for a while until there is sufficient bulk to run services. The farmer loses time and ability to meet contracts to market. The opening of the Toowoomba Range Crossing increased the capacity of road freight to meet time, cost and logistics savings for delivering product from farm to port, and all other regional and interstate freight services to Brisbane. The Business Case 2015 does not represent this freight capacity for the B2G Section and the Inland Rail benefit claims are not valid.	nil.	Potential impacts from the operation of the temporary concrete batching facility located at the laydown area (B2G-LDN0152) and its potential for dust to contaminate food and agricultural products has been updated in the revised draft EIS (Chapter 12: Air Quality, Section 12.51). Impacts are expected to be within statutory requirements given the proposed separation distances to the Vary Agricultural Services and the additional mitigation measures as outlined in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 12: Air Quality Section 12.51 Chapter 24: Draft Outline Environmental Management Plan
214	214.0001	Private	General project opinion - positive		Wagner Corporation is wholly supportive of Inland Rail and particularly the B2G Section as presently outlined. We believe Inland Rail and the B2G Section will provide enormous benefits to the State of Queensland and particularly the Toowoomba Region.	nil.	ARTC acknowledge the Wagner Corporation's support of the Project and the benefits for the Toowoomba Region.	N/A
214	214.0002	Private	Approvals/conditions/recommendations		Proposed Development: The draft EIS does not consider or detail in any way the proposed rail terminal planned for the Wellcamp Business park adjoining the Toowoomba Wellcamp Airport.	Wagner Corporation requests that the OCG impose a condition that the proponent is required to consult with Wagner Corporation and to make plans and/or accommodations for the proposed rail terminal to be located at adjacent to the Toowoomba Wellcamp Airport.	This issue is noted. Submission to be considered by The Office of the Coordinator-General.	N/A
214	214.0003	Private	Traffic and Transport		Cecil Plains Road: The draft EIS does not consider or provide sufficient detail regarding the need to maintain access to heavy road traffic (including oversize loads etc.) at the crossing located at Cecil Plains Road.	Wagner Corporation requests that the OCG impose a condition that The proponent is required to ensure that the rail crossing at Cecil Plains Road be sufficient to ensure 2 lanes in each direction and the construction of that bridge include upgrading the associated road in both easterly and westerly directions	ARTC is consulting on technical requirements for Toowoomba Cecil Plains road with the road manager (TMR) including requirements for any futureproofing elements relating to this interface. This includes requirements for any futureproofing elements relating to this interface. Consultation on the final agreed solution remains ongoing and will be agreed in Detailed Design stage prior to constructions. Assessment for Cecil Plains road has been undertaken within Appendix AA: Traffic Impact Assessment).	Appendix AA: Traffic Impact Assessment

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
215	215.0001	Private	Land Use and Tenure	Directly impacted landowner	The main issues affecting the submitter's property is the proposed Inland Rail route which is dissecting and flooding and causing further issues and disruptions to farming operations and logistics. In particular, the proposed route will dissect a paddock which is critical for sheep grazing operations and logistics. The issue of dissection in this part of our property presents additional logistical issues mainly relating to movement of stock and machinery across the rail line. They have thousands of sheep grazing together at one time and must rotate their stock around to different paddocks. Moving sheep, heavy machinery such as trucks, tractors (pulling various implements), headers, will also become difficult with the frequent passing of trains.	nil.	The revised reference design for the Project includes changes to the alignment in the vicinity of the submitter's property. Chapter 2: Project Rationale, Section 2.10.9 outlines the revised reference design options assessment, including the Millmerran Alternative Alignment which has been based upon ongoing consultation with local business and community, and the content of public submissions. As outlined in Chapter 8: Land Use and Tenure, Section 8.6, ARTC will continue to consult with potentially impacted landowners through the Detailed Design and Pre-Construction Activities and Early Works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect agricultural enterprises. This will include the identification of: <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences, water storages, groundwater bores and irrigation infrastructure that would be affected and need to be considered in compensation arrangements for the property The potential for changes in access to natural resources, such as groundwater and overland flow. As outlined in Chapter 8: Land Use and Tenure, Section 8.5.1, where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance. Where changes to flooding and geomorphology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 14: Flooding and Geomorphology). The FIOs applied to assess the Project impacts including erosion and scouring potentials are presented in Chapter 14: Flooding and Geomorphology Section 14.6.3, Table 14-4. The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land. Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landowners. This is also further discussed in the revised draft EIS, Chapter 8: Land Use and Tenure, Section 8.5.1.	Chapter 2: Project Rationale Section 2.10.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1
215	215.0002	Private	Land Use and Tenure	Property Devaluation	Based on ARTC's latest design, they are proposing to build an additional passing loop with the main line through the submitter's property, which will only add to the impacts on their property. The market value of their property will drop significantly due to the Inland Rail route because such a large portion of their property will be affected by the infrastructure, causing large losses in overall equity and profitability as a business.	nil.	The revised reference design for the Project includes changes to the alignment in the vicinity of the submitter's property. Chapter 2: Project Rationale, Section 2.10.9 outlines the revised reference design options assessment, including the Millmerran Alternative Alignment which has been based upon ongoing consultation with local business and community, and the content of public submissions. As outlined in Chapter 8: Land Use and Tenure, Section 8.5.1, where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance (Chapter 8: Land Use and Tenure, Section 8.6.2).	Chapter 2: Project Rationale Section 2.10.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
215	215.0003	Private	Flooding	Baseline/background sampling	There are also concerns with ARTC's floodwater estimations and computer modelling systems used to demonstrate that the floodwater depths around the Gore Highway are somewhat minimal. Using computer modelling and TRC (Toowoomba Regional Council) flood studies, ARTC's model flood water depth through the submitter's property and over the Gore Highway was claimed to be only 200 mm. The submitter provides photographic evidence of their property where 1200 posts were completely submerged. There are significant errors in ARTC's flood water predictions in this area as they have not accurately accounted for realistic flood water depths in their modelling.	nil.	Construction and operations flood impacts on land in the Condamine River floodplain have been described in Chapter 14: Flood and Geomorphology Section 14.8.1 and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.5.3. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted Flood Impact Objectives (FIOs) to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC have undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
215	215.0003	Private	Stakeholder engagement		Members of the community including the submitter were not officially notified about this meeting which was being held to show landowners how their properties would be affected by the Inland Rail project. Flyers and letters about the drop-in session were received up to one week after the session had already taken place. Despite a strong media presence at the meeting (both Channel 7 and Channel 9), the media crews weren't allowed to show the ARTC employees faces and only film from the waist down. ARTC's preferred method of consultation is also flawed and micromanaged. Instead of holding open and honest large community meetings; their preferred method is conducting one on one drop in sessions. The CCC process was also very frustrating to landowners because people gave up their valuable time to attend, only to sit and listen to ARTC ramble on without any substance.	nil.	ARTC notes that this submission refers to a community engagement event held in June 2016. The community engagement associated with the development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and subsequent corridor selection process was managed by the Federal Department of Infrastructure and Regional Development. Targeted engagement has been undertaken in the development of the revised draft EIS, and this is documented in Appendix E: Consultation Report. The consultation approach is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2. ARTC established the two CCC's for the Project in December 2017 to facilitate broader community involvement in the Project. The purpose of a CCC is to: <ul style="list-style-type: none"> seek community feedback and input to Project outcomes increase awareness and understanding for the Project by providing communities with 'one-point of call' for Project information act as a conduit between the Project team and the community by providing information or addressing issues and concerns. While the committees are not decision-making bodies, the input and feedback they receive will help the Project to better address community issues and concerns during planning and design. The CCC meetings are chaired by an independent chair and that committee members are given the opportunity to nominate topics for the agenda. Details of the CCC process is outlined in Appendix E: Consultation Report, Section 4.	Appendix E: Consultation Report Section 4
215	215.0004	Private	Land Use and Tenure	Baseline/background sampling	The submitter highlights the flaws in conducting a multi criteria analysis to select the best route out of 4 proposed alternative. The results of the MCA were also flawed as there wasn't enough emphasis on critical issues e.g. flooding, high quality agricultural land. He also highlights that no detail costings had been done across the Condamine floodplain.	Look for viable alternative router forestry route	As described in Section 2.8 and Section 2.9 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC are committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of good quality agricultural land that cannot be avoided (Chapter 8: Land Use and Tenure, Section 8.6.1). Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2). Where changes to flooding and geomorphology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 14: Flooding and Geomorphology). The FIOs applied to assess the Project impacts including erosion and scouring potentials are presented in Chapter 14: Flooding and Geomorphology, Table 14-4, Section 14.6.3. The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land. Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landowners. This is also further discussed in the revised draft EIS, Chapter 8: Land Use and Tenure, Section 8.5.1.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.1 Section 8.6.2 Table 8-46 Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1
216	216.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the project. 	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
216	216.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detail design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during Detailed Design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
216	216.0004	Private - Brookstead	Noise and Vibration	Operational rail noise	ARTC have not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the Detailed Design and Construction Works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
216	216.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landowners. The EIS provides slot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landowners did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. Draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.2.1.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the Detailed Design and Construction Works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <ul style="list-style-type: none"> As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below: ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Section 6.4</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
217	217.0001	Private	Flooding		The submitter voices her opposition to the project going through the township of Brookstead and Pittsworth. It is a rich agricultural area which has the potential of severe flooding. The submitter wants ARTC to consider alternative route for this area. She proposes Inglewood as it has large trees and grass which are not prone to flooding as much as the current proposed route. The submitter also states that some wealthy influential and powerful people may have personal gains from the proposed route.	Reroute through Inglewood	<p>The EIS is focussed on the chosen alignment selected by the Australian Government.</p> <p>The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale. Section 2.8 and Section 2.9 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: inlandrail.gov.au/people-and-community/Border-to-Gowrie-route-assessment</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p>
218	218.0001	Local Government	Project scope		Commencement of construction works prior to the end of 2021	Council has concerns regarding this timeframe and requires that construction works not commence prior to the finalisation of the Australian Government Minister for the Environment, and the relevant early works Construction Environmental Management Plan (CEMP) has been endorsed by the Environmental Monitor.	<p>A revised schedule has been provided in the revised draft EIS at Chapter 5: Project Description, Section 5.3.6. Pre-construction activities and early works are undertaken prior to full mobilisation of the contractor. These works may be undertaken under a separate contract but will not commence until the Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) has been approved by the Coordinator-General and the Australian Government Minister for the Environment, and the relevant early works Construction Environmental Management Plan (CEMP) has been endorsed by the Environmental Monitor.</p> <p>The anticipated timing of stages for the Project are shown in Table 5-3.</p> <p>The Independent International Panel of Experts for Flood Studies (the Panel) has submitted a final report, dated 6 September 2022. The report has been made available and is publicly available here: independentpanelofexpertsforfloodstudies.in.gov.au.</p> <p>The report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the four Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> providing additional information which addressed the queries raised completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) recommending that some issues raised are dealt with at Detailed Design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next Steps</p> <ul style="list-style-type: none"> ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project Approvals and Corridor Acquisition, Detailed Design, Construction Works, Operations). A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.3.6</p> <p>Table 5-3</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.4</p> <p>Appendix T1: Hydrology and Flooding Technical Report</p> <p>Appendix A</p> <p>Appendix B</p>
218	218.0002	Local Government	Project scope		Council's technical review of the draft EIS is that it does not meet the requirements of the Terms of Reference. He Draft EIS consistently does not provide sufficient detail or evidence regarding the potential and possibly significant environmental, infrastructure, water resource, cultural, social and economic impacts of the proposed project or identify and commit to appropriate mitigation measures.	Council strongly recommends that the OCG require the draft EIS to be updated to address these matters to ensure it meets the full requirements of the TOR as this is a statutory obligation of the proponent under the SDPWO Act.	<p>As described in the revised draft EIS at Chapter 1: Introduction, Section 1.5, between 23 January 2021 and 4 May 2021, the draft EIS was made available for public comment under Section 33 of the SDPWO Act and public submissions were received. Terms of reference compliance has been updated for the revised draft EIS in Appendix A2: Terms of Reference - Cross Reference Table. On 4 January 2022 the Coordinator-General requested additional information under Section 34B(2) of the SDPWO Act. The Office of Coordinator-General additional information requirements and the proponent's (ARTC) responses to the public submissions received comprise the basis of assessment for the revised draft EIS.</p> <p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>The following steps in the coordinated Project process remain to be completed:</p> <ul style="list-style-type: none"> Once the Office of Coordinator-General has deemed that the additional information requirements have been satisfactorily addressed, the revised draft EIS will be made available for public comment. Submissions can be made to the Coordinator-General to be considered during evaluation of the revised draft EIS. The Coordinator-General will evaluate the revised draft EIS and may accept it as the final EIS. If accepted as final, the Coordinator-General prepares a report (i.e. Coordinator-General's evaluation report) on the final EIS consistent with the requirements of the SDPWO Act. <p>The EIS identifies and describes the environmental values that must be protected as specified in Section 9 of the Environmental Protection Act 1994 (Qld) (EP Act), the Environmental Protection Regulation 2019 (Qld), environmental protection policies, water resource plans, State Planning Policy, relevant guidelines and the EPBC Act. The relevant controlling provision for the Project is listed threatened species and communities (Sections 18 and 18A) (reference number EPBC 2017/7944). Refer Appendix O: Matters of National Environmental Significance Report for further detail.</p> <p>Chapter 3: Legislation and Project Approvals Process summarises the key Commonwealth and State legislation, and local government plans and policies and how they relate to approvals necessary for the planning, Construction Works and Operations stages of the Project. Chapter 3: Legislation and Project Approvals Process also tables the potential post-EIS approvals (Table 3-5), providing the triggers for each approval, the relevant administering authority and whether potential exemptions are available to the Project and ARTC. Approval and permit requirements may vary depending on the final design and construction methodology, and future changes in statutory requirements prior to the Project's implementation.</p> <p>The revised draft EIS compliance with the terms of reference is documented in Appendix A2: Terms of Reference - Cross Reference Table.</p>	<p>Chapter 1: Introduction</p> <p>Section 1.5</p> <p>Chapter 3: Legislation and Project Approvals</p> <p>Table 3-5</p> <p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Appendix A2: Terms of Reference - Cross Reference Table</p> <p>Appendix O: Matters of National Environmental Significance Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0003	Local Government	General project opinion - negative		Overarching key issues of concern regarding the Draft EIS	<p>Overarching issues of concern:</p> <ul style="list-style-type: none"> ▶ Conflicting, dated and irrelevant information and statements throughout the document (between the executive summary, main document, and the appendices, as well as between different sections). ▶ Gaps, inconsistencies, and deficiencies in technical studies, including a lack of commitment to the application of industry standard best practice and guidance. ▶ Potential impacts that are inadequately or inconsistently identified, assessed, and mitigated to ensure no significant residual impacts by the proposal. ▶ Lack of consideration of the broader impacts of the proposal on existing land uses and land users. ▶ Limited or no evidence of how significant issues previously and consistently raised by TRC directly with the proponent have been considered in the Draft EIS and how those issues are proposed to be managed (an example includes use of TRC water resources). <p>Attached is the full Table of issues, comments and recommendations that Council is of a view needs to be addressed prior to the final approval by the Coordinator General. Council recommends the Coordinator General seek additional information given the potential nature, scale and duration of the impacts of the B2G project on the environment (be it natural, built, cultural, social or economic).</p>	<p>ARTC acknowledge TRC's concerns. Significant additional assessments and field surveys have been conducted since submission of the draft EIS. These assessments have been used to update the revised draft EIS chapters and supporting documents to meet the terms of requirement (see Appendix A2: Terms of Reference Compliance Table), stakeholder concerns, and to remove inconsistencies and deficiencies in research, modelling, assessment of impacts and mitigations. The revised draft EIS replaces in full the draft EIS.</p>	Appendix A2: Terms of Reference Compliance Table
218	218.0004	Local Government	Surface Water	Construction water supply	Availability of water in the Perseverance and Cooby dams	<p>Construction Water</p> <p>The draft EIS identifies that Perseverance and Cooby dams may be sources of water for construction purposes. Council officers have consistently advised that these sources are not available, and we request that this reference be removed.</p> <p>Council reiterates this and further determined that Council's response is that all water sources under its control including raw, potable, surface and bore water used to supply all Toowoomba Communities will not be available for construction of the Inland rail works by the proponent or its contractors.</p> <p>Council's priority for water supply will always be for urban supply over construction works and the proposal to use these water sources for construction purposes is considered inappropriate. Given the significance of water in the region, the proponent should clearly outline its proposed approach to construction water management, which does not include TRC water resources.</p>	<p>The construction water strategy for the Project has been updated to reflect amendments to the reference design, stakeholder feedback received during consultation and from submissions on the draft EIS, as well as advances made in planning for construction of the project. Revised details are provided in Section 5.6.24 of Chapter 5: Project description regarding:</p> <ul style="list-style-type: none"> ▶ Estimated volumes required, by activity ▶ The quality of water required for various tasks ▶ The sourcing of water, including reliability and access considerations ▶ Monitoring of the take and usage of water. <p>In revising the construction water strategy, ARTC has recognised TRC's position of prohibiting access to Council's water sources for the project. Consequently, there is no intention to obtain water from TRC-managed sources in the revised construction water strategy. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
218	218.0005	Local Government	Traffic and Transport	Level crossing	Impact on local government road network	<p>Impact on LGA road network</p> <p>The Draft EIS and reference design identifies 36 local road-rail interfaces and proposes to create 10 new passive level crossings; 5 new active level crossings; 6 grade separated crossings, with no crossings or consolidations, diversions or closures of local roads proposed at the remaining 15 locations.</p> <p>TRC does not support the use of passive level crossings at any new road-rail interfaces or any re-purposed existing road-rail interfaces, whether supported by Australian Level Crossing Assessment Model (ALCAM) outputs or not. TRC has not, at the time of making this submission, agreed in-principle or otherwise, with any of the proposed road-rail interfaces, or any of the consolidations, diversions or closures of local roads proposed in the Draft EIS.</p> <p>The Draft EIS requires updating to commit to appropriate consultation with the landowners where private land is proposed to be used for laydown areas as a matter of priority. Laydown areas should also be appropriately identified on a map.</p>	<p>ARTC note that in the revised draft EIS all passive level crossings have been eliminated within the Toowoomba Region based on the latest ALCAM inputs agreed with the road managers.</p> <p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT of Appendix AA: Traffic Impact Assessment. This overview provides Office of Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Appendix BT
218	218.0006	Local Government	Project scope		Recognised standards and practices. Results of technical studies must be known prior to commencement of construction and approvals	<p>Recognised Standards and Practices</p> <p>Council's position is that the proponent should be required to maintain the recognised standards and practices as stated in the Terms of Reference and that it be required to achieve these standards and practices in the information responding to the Coordinator General. Construction and approvals should not commence prior to the results and finalisation of the technical studies including but not limited to the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland.</p>	<p>The revised draft EIS compliance with the terms of reference is documented in Appendix A2: Terms of Reference - Cross Reference Table.</p> <p>Chapter 3: Legislation and Project Approvals Process summarises the Commonwealth Government and Queensland Government legislation relevant to the Inland Rail Border to Gowrie Project (the Project) and identifies the approvals, permits, licences and authorities necessary for the Detailed Design, Construction Works and Operations stages of the Project. Figure 3-1 provides a schematic explanation of the interaction of the Coordinated Project process (under the State Development and Public Works Organisation Act 1971 (Qld) (SDPWO Act)) with the Planning Act 2016 (Qld) (Planning Act) while Figure 3-2 sets out the steps in the process, including remaining steps. Further explanation of the approval processes for prescribed environmentally relevant activities under the Environmental Protection Act 1994 (Qld) and Planning Act are shown in Figure 3-3. Table 3-1 details key approvals sought through the EIS. Table 3-5 details potential post-environmental impact statement approvals for the project.</p> <p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>This includes the outcomes of the final report of the Independent International Panel of Experts for Flood Studies (the Panel), dated 6 September 2022. The report has been made available and is publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (mr.qld.gov.au).</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The final report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the 4 Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> ▶ providing additional information which addressed the queries raised ▶ completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) ▶ committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) ▶ recommending that some issues raised are dealt with at Detailed Design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next Steps</p> <ul style="list-style-type: none"> ▶ ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. ▶ ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. ▶ Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project Approvals and Corridor Acquisition, Detailed Design, Construction Works, Operations). ▶ A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. ▶ Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	Chapter 3: Legislation and Project Approvals Process Figure 3-1 Figure 3-2 Figure 3-3 Table 3-1 Table 3-5 Chapter 5: Project Description Section 5.3.3 Chapter 14: Flooding and Geomorphology Section 14.4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix A to D
218	218.0007	Local Government	Social Impact Assessment	Workforce and employment	No focus or commitment in providing real jobs and opportunities to members and businesses of the local community	nil.	<p>Appendix X: Social Impact Assessment, Section 8.3.1 notes that to boost local workforce numbers, the Project's procurement process for the construction contract enables competitive bidding for local employment targets and procurement targets, incentivising the contractors to maximise local benefits.</p> <p>Appendix X: Social Impact Assessment, Section 8.3 notes that "employment opportunities will be available for professional staff and supervisors, trade workers and plant operators, earthworks crews, bridge structure teams, capping and track-works crews, safety and signalling systems installation crews, fencers and labourers," and that "one of ARTC's primary aims is to maximise employment opportunities for residents within the SIA study area".</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 has been updated to provide examples of and commentary regarding minimum and aspirational targets relevant to local and Indigenous procurement and workforce participation.</p> <p>Businesses which trade from a street address within the SIA study area or Region (as defined above) are considered "local". Appendix X: Social Impact Assessment, Section 8.6.3. has been updated in this regard. This is consistent with the reporting framework for other Inland Rail Projects and ARTC is unable to adopt additional Project-specific definitions.</p>	Appendix X: Social Impact Assessment Section 8.3 Section 8.3.1 Section 8.6.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0008	Local Government	Project scope	Increase in flows	Hydrology - principle of no actionable nuisance in relation to any changes in drainage flows and/or flow paths.	<p>Hydrology The draft EIS addresses only technical engineering design criteria and fails to address the common law principle of no actionable nuisance in relation to any changes in drainage flows and/or flow paths. All direct and indirect impacts on local drainage flows and/or flow paths should be identified and mitigation measures provided. Construction and approvals should not commence prior to the results and finalisation of the technical studies including but not limited to the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland.</p> <p>The reference design indicates that the proposed project will intercept, divert and concentrate upstream overland flows to higher locations in each catchment and may even potentially divert flow between catchments. These changes have the potential to adversely affect TRC road and drainage infrastructure and private property owners.</p> <p>The draft EIS should be amended to address groundwater levels and quality. The proponent should propose appropriate mitigation measures to ensure risks to levels and quality are properly managed (ALARP).</p>	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). Flood flow distribution has been assessed and is discussed in Section 14.9.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.5.1 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.10.1 (Table 14-117), 11 of Chapter 14: Flooding and Geomorphology.</p> <p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS.</p> <p>As per ARTC's Mitigation Framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.6.3</p> <p>Section 14.8.1</p> <p>Section 14.11</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 4.2</p> <p>Section 5-17</p> <p>Section 18.2</p> <p>Appendix T2: Flooding and Hydrology Technical Report - Volume 2</p>
218	218.0009	Local Government	Cultural Heritage	Indigenous cultural heritage	Cultural Significance - areas have not been adequately highlighted or protected	<p>Cultural Significance Areas of Cultural Significance have not been adequately highlighted or protected within the draft EIS. These areas are required to be identified with potential impacts highlighted. Mitigation measures are required to minimise impacts on these Areas of Cultural Significance. Impacts to areas of aboriginal cultural heritage and historical rail lines are proposed, however the Draft EIS did not include copies of Cultural Heritage Management Plans (CHMP) or other measures to demonstrate how these impacts would be mitigated.</p>	<p>As outlined in Chapter 19: Cultural Heritage, Section 19.5 and 19.6, impacts to Indigenous cultural heritage will be identified and managed in accordance with the Cultural Heritage Management Plans developed between ARTC and Bigambul People, Western Wakka Wakka people and the Endorsed Aboriginal Parties for the unclaimed area in 2018. Cultural Heritage Management Plans are confidential documents and cannot be made publicly available.</p> <p>The identification of Indigenous cultural heritage and assessment of potential impacts is occurring in consultation with the relevant Aboriginal Parties and in accordance with the approved CHMPs for the Project which forms the basis for tangible and intangible Indigenous heritage considerations. CHMPs for the Project are confidential and do not allow details on their content to be disclosed without following due consideration to the relevant Aboriginal Parties. The broad activity types defined in the Aboriginal Cultural Heritage Act Duty of Care Guidelines provides general guidance on the potential for harm to be caused to Aboriginal cultural heritage.</p> <p>The Duty of Care Guidelines recognise that it is unlikely that Indigenous cultural heritage will be harmed where:</p> <ul style="list-style-type: none"> ▶ The proposed activity is on an area previously subject to significant ground disturbance and the activity will impact only on the area subject to the previous disturbance; or ▶ The impact of the proposed activity is unlikely to cause any additional harm to Indigenous cultural heritage than that which has already occurred. 	<p>Chapter 19: Cultural Heritage</p> <p>Section 19.5</p> <p>Section 19.6</p>
218	218.0010	Local Government	Flora and Fauna	Mitigation measures	Flora and fauna - avoidance of impacts	<p>Flora and Fauna The Draft EIS requires amendment to further outline and clarify a commitment to the avoidance of potential impacts on native flora and fauna. Further surveys, including on ground assessments, are required to assist in the identification of core fauna and flora habitats. Minimising or mitigating options are secondary options to be employed after all avenues of avoidance have been exhausted.</p> <p>The Draft EIS should demonstrate how impacts to environmentally sensitive areas have been avoided and minimised. The proponent should commit to a more comprehensive assessment of ecological impacts and mitigation measures that align with standard industry practice.</p>	<p>Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project alignment. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction activities and early works stage, construction works and Operations stages.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, provides further context and the framework for implementation of these proposed mitigation and management measures.</p>	<p>Chapter 11: Flora and Fauna</p> <p>Section 11.5</p> <p>Section 11.6</p> <p>Section 11.7</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
218	218.0012	Local Government	Cultural Heritage	Non-Indigenous cultural heritage	Protection of Mt Kent Observatory	<p>The Draft EIS should recognise the international significance of the Mount Kent Observatory, and provide mitigation measures to ensure that the astronomical observational capabilities of the Observatory (protection of the night sky) are not adversely impacted to the satisfaction of the University of Southern Queensland and its astronomical partners.</p>	<p>An obtrusive lighting assessment has been conducted and is documented as part of the Landscape and Visual Impact Assessment for the Project (Chapter 10: Landscape and Visual Impact Assessment, Section 10.3.3.3 and Appendix K: Landscape and Visual Impact Assessment Section 4.11 and Section 9.2 (Appendix 3)). The obtrusive lighting assessment concludes that there will be no impact to the observational capabilities of the Mount Kent Observatory. Due to the distance of Mt Kent observatory 21km southeast of the alignment, there are no concerns regarding lighting impacts associated with the Project. The lighting proposed is essential for safety and the current mitigation measures incorporated in the report include to keep this to the minimum required standards. An obtrusive lighting consultant met with Mt Kent observatory and they noted satisfaction with the assessments to date. The Project remains committed to continue to engage with Mount Kent Observatory as it progresses into detailed design.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.3.3.3</p> <p>Section 10.5.5</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.11</p> <p>Section 9.2</p> <p>Appendix 3</p>
218	218.0013	Local Government	Editorial		<p>Inconsistencies between executive summary and Draft EIS: Term of Reference (TOR) 8.1 requires that the executive summary should describe the project and convey the most important and preferred aspects and environmental management options relating to the project in a concise and readable form. It should use plain English, avoid jargon, be written as a stand-alone document, and be structured to follow the EIS. It should be easy to reproduce and distribute on request to those who may not wish to read or purchase the whole EIS.</p> <p>Technical review of the Draft EIS by Toowoomba Regional Council (TRC) has revealed that there are many inconsistencies between the executive summary and the Draft EIS including, but not limited to, incorrect data, errors in sourcing references and inconsistencies in proposed project timeframes. The executive summary cannot be relied upon as a stand-alone document. As such, the document does not meet the requirements of TOR 8.1.</p>	<p>The Draft EIS requires updating to ensure it is consistent, accurate and appropriate and that the executive summary accurately reflects the detail provided in the main document and its associated appendices as required by TOR 8.1.</p>	<p>Substantial revisions have been made to the revised draft EIS, capturing the outcomes of on-going investigations and ensuring a document that is more consistent, accurate and appropriate.</p> <p>The Executive Summary and Conclusions (Chapter 25: Conclusions) have also been reworked and in so doing reflects the revisions that have been made to the body of the EIS.</p> <p>The Executive Summary has been developed to address the requirements of the Terms of Reference, Section 8.As such it describes the Project and conveys the most important and preferred aspects and environmental management options relating to the Project. Key aspects and relevant information has been extracted from the revised draft EIS, to achieve consistency across the EIS and with the Executive Summary, include several chapters but in particular:</p> <ul style="list-style-type: none"> ▶ Chapter 2: Project Rationale ▶ Chapter 5: Project Description <p>The Executive Summary has been developed to be a stand-alone document, structured to mirror the contents of the revised draft EIS. This document is intended to provide a clear summary of the Project (including aspects, environmental management options) to stakeholders, potentially impacted landowners and the greater public who wish to review each report presented in the revised draft EIS.</p>	<p>Executive Summary</p> <p>Chapter 2: Project Rationale</p> <p>Chapter 5: Project Description</p> <p>Chapter 25: Conclusions</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0014	Local Government	Stakeholder engagement		<p>Consultation: TOR 7.8 requires the EIS to 'describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the project.'</p> <p>TOR 7.9 requires the inclusion of a public consultation report (as an appendix) 'detailing how the public consultation plan was implemented and the results of the implementation.'</p> <p>TRC have met with the proponent's project team on multiple occasions in relation to concerns TRC have regarding the proposed adverse impacts relating directly to the proposed project. However, the details of commitments made by the proponent during consultation with TRC have not been adequately addressed or included as commitments in the Draft EIS, including issues relating to:</p> <ul style="list-style-type: none"> ▶ Construction water sources; ▶ The proposed management of road/rail crossing interfaces do not meet the desired outcome of the Federal Rail Safety Guidelines); ▶ Local road and traffic requirements; ▶ The appropriate management of flood mitigation in the Condamine Floodplain; ▶ The current and significant accommodation shortages in the TRC region; and ▶ The appropriate management of providing regional job opportunities for the local community. Consultation: TOR 7.8 requires the EIS to 'describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the project.' <p>TOR 7.9 requires the inclusion of a public consultation report (as an appendix) 'detailing how the public consultation plan was implemented and the results of the implementation.'</p> <p>TRC have met with the proponent's project team on multiple occasions in relation to concerns TRC have regarding the proposed adverse impacts relating directly to the proposed project. However, the details of commitments made by the proponent during consultation with TRC have not been adequately addressed or included as commitments in the Draft EIS, including issues relating to:</p> <ul style="list-style-type: none"> ▶ Construction water sources; ▶ The proposed management of road/rail crossing interfaces do not meet the desired outcome of the Federal Rail Safety Guidelines); ▶ Local road and traffic requirements; ▶ The appropriate management of flood mitigation in the Condamine Floodplain; ▶ The current and significant accommodation shortages in the TRC region; and ▶ The appropriate management of providing regional job opportunities for the local community. <p>Consultation: TOR 7.8 requires the EIS to 'describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the project.'</p> <p>TOR 7.9 requires the inclusion of a public consultation report (as an appendix) 'detailing how the public consultation plan was implemented and the results of the implementation.'</p> <p>TRC have met with the proponent's project team on multiple occasions in relation to concerns TRC have regarding the proposed adverse impacts relating directly to the proposed project. However, the details of commitments made by the proponent during consultation with TRC have not been adequately addressed or included as commitments in the Draft EIS, including issues relating to:</p> <ul style="list-style-type: none"> ▶ Construction water sources; ▶ The proposed management of road/rail crossing interfaces do not meet the desired outcome of the Federal Rail Safety Guidelines); ▶ Local road and traffic requirements; ▶ The appropriate management of flood mitigation in the Condamine Floodplain; ▶ The current and significant accommodation shortages in the TRC region; and ▶ The appropriate management of providing regional job opportunities for the local community. 	<p>The requirements of TOR 7.8 have not been met by the Draft EIS and as such, the Draft EIS requires updating to include real and appropriate commitments including, but not limited to, those already made by the proponent to TRC during consultation sessions to meet the requirements of TOR 7.8 and 7.9.</p>	<p>Appendix E: Consultation Report has been updated to include consultation that has been undertaken to inform the revised draft EIS. This includes extensive consultation with TRC in Appendix E: Consultation Report, Section 4. ARTC understands that TRC is one of the key stakeholder critical to the success of the Inland Rail Project. As such, ARTC maintains regular, scheduled engagement with TRC at multiple levels to ensure this stakeholder has clear opportunities for input and consultation. ARTC notes the key areas of concern, as outlined in TRC's submission to the draft EIS, and has been working with the submitter to address concerns.</p> <p>ARTC understands the working relationship with TRC is well established and constructively collaborative. A formal schedule of meetings has been consistent since 2017, as an established means to communicate updates, resolve concerns and identify development opportunities.</p> <p>Engagement with TRC comprises interactions on four levels:</p> <ol style="list-style-type: none"> 1. Mayor and councillor briefings, both formal and informal 2. Management working group 3. Technical working group 4. Officer level working groups focusing on key issues, including social impact, offsets, agreements, etc. <p>ARTC meets quarterly with TRC to discuss matters relevant to the SIA and consider feedback on community concerns. Consultation outcomes are detailed in Appendix X: Social impact assessment. Key outcomes from consultation have included:</p> <ul style="list-style-type: none"> ▶ upgrade of all proposed level crossings in the TRC region from passive level crossings to active level crossing ▶ changes to the local road network in Pampas and Brookstead ▶ changes to the Athol School Rd and Purcell Rd ▶ widening of road reserves to allow for upgraded infrastructure and future proofing ▶ advice about engaging with communities in the TRC region, including complaints grievance procedures ▶ key input into legacy planning for the region, such as telecommunications connectivity, visual amenity. 	Appendix E: Consultation Report Section 4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0015	Local Government	Editorial		<p>Inconsistencies and issues with main document and its appendices: There are numerous inconsistencies and issues with the Draft EIS that occur throughout the document, including, but not necessarily limited to:</p> <ul style="list-style-type: none"> As mentioned in Comment 1, the executive summary is inconsistent with the main document (technical chapters and appendices), is too long (128 pages) and should be condensed further to ensure the key considerations, issues and outcomes are highlighted. Chainage is introduced early in the Draft EIS (Chapter 1, Section 1.2.2.2), providing the reader with horizontal distances and locations along the alignment. However, the use of chainage is not consistent throughout the Draft EIS and is specifically not referred to in any useful way in many of the technical chapters, including Chapter 9 (uses GIS references for identifying the location of viewpoints, and chainage for discussing mitigation); and Chapter 10 (chainage is only mentioned when discussing the wild dog check fence and bridge locations (sections which have been copied from elsewhere in the document). This inconsistent use of chainage throughout the document results in the reader being unable to easily identify the cumulative impact the proposed project may have on the surrounding environment. Geocentric Datum of Australia 1994 (GDA94) is used throughout the Draft EIS. While this is the current standard, GDA2020 is the current system and provides a more robust and accurate datum. The Draft EIS fails to address the potential impact to existing utilities as a result of the proposed project. Certain Chapters and Appendices of the Draft EIS consistently refers to NSW issues (including, but not limited to, legislation and community consultation, processes, and requirements) at times in some detail. This level of detail is not reflected in the same information when it directly relates to Queensland. The proposed project is located in Queensland. Chapter 2, Section 2.1, Table 2.1 (alternative routes), Forestry route, via Cecil Plains. The route option cross-reference not provided. There are numerous other formatting/referencing errors (e.g., repetitive paragraphs) throughout the document which indicate a lack of final review. Technical review has revealed data, State and Federal guidelines, standards etc used to inform some technical studies are not industry best practice, fit for purpose, or considered to be technically appropriate or current. 	<p>It is recommended that the Draft EIS be rewritten to remove inconsistencies and confusion raised through missing, potentially misleading, or inaccurate information, including, but not necessarily limited to:</p> <ul style="list-style-type: none"> Executive Summary needs to be consistent with the main document and summarised further to meet the requirements of TOR 8.1. The Draft EIS should reference chainage consistently in order to ensure that the actual impact the proposed project will have on the surrounding environment may be easily identified and understood by the reader, including the ability to identify cumulative impact. The Draft EIS should reflect GDA2020 to align with TRC systems and achieve best practice. The Draft EIS requires update to adequately address potential impacts to existing utilities. The Draft EIS should reflect the fact that the project is located in Queensland, not NSW. This is particularly relevant when discussing matters relating to topics such as stakeholder and community consultation. Table 2.1 requires updating to provide a correct cross-reference. It is recommended a final review of the document to correct formatting and referencing errors be completed. Technical Chapters and Appendices require updating to ensure relevance to proposed project and the surrounding environment (further detail provided in comments following). Technical studies to be reviewed and updated to ensure that they accord with the requirements of the TOR and current Queensland and Federal regulatory requirements, industry guidance and best practice. 	<p>Substantial revisions have been made to the revised draft EIS, capturing the outcomes of ongoing investigations and ensuring a document that is more consistent, accurate and appropriate.</p> <p>Revisions include:</p> <ul style="list-style-type: none"> A complete review and update of the chapters and technical studies including addressing the request by the Coordinator-General for additional information Chapter 8: Land Use and Tenure revised to include additional information on potential impacts on utilities; Table 8-43 summarises the potential impacted utilities; Appendix B4: Utilities illustrates all utilities potentially impacted by the Project. Changes have been made to chainages to reflect revisions to the reference design; the revised chainages have been mapped to enable impacts to be more easily identified and understood. More complete, accurate and consistent cross-referencing. <p>Mapping Projection used for the EIS is in accordance with the ToR 7.5 and in Geocentric Datum of Australia 1994 (GDA94)</p> <p>The Executive Summary and Conclusions (Chapter 25: Conclusions) have been reworked and in so doing reflects the revisions that have been made to the body of the revised draft EIS. The Executive Summary has been developed to address the requirements of the Terms of Reference, Section 8.As such it describes the Project and conveys the most important and preferred aspects and environmental management options relating to the Project. Key aspects and relevant information has been extracted from the revised draft EIS, to achieve consistency across the EIS and with the Executive Summary, include several chapters but in particular:</p> <ul style="list-style-type: none"> Chapter 2: Project Rationale Chapter 5: Project Description Chapter 2: Project Rationale, Section 2.9.3 and Table 2-2, makes reference to sections of rail through Cecil Plains that are no longer required. 	<p>Executive Summary Chapter 2: Project Rationale Section 2.9.3 Table 2-2 Chapter 5: Project Description Chapter 8: Land Use and Tenure Table 8-43 Chapter 25: Conclusions Appendix B4: Utilities Appendix E: Consultation Report Section 5.15</p>
218	218.0016	Local Government	Project scope	Survey effort/field investigation data	<p>Inappropriate technical assessments: The Draft EIS collected and assessed existing information on groundwater, surface water, water quality, land use, land use tenure and most other environmental values relevant to the surrounding environment. However, the potential impacts of the proposed project are discussed in very general terms, with few exceptions (e.g., Chapter 8 provides specific mitigation measures). The potential adverse impacts the surrounding environment will experience as a result of the proposed project need to be addressed appropriately in order for the Draft EIS to meet TOR 5.1 (all relevant environmental, social and economic impacts. Are identified and assessed and to recommend mitigation measures to avoid or minimise adverse impacts) The potential impacts of the proposed project they have direct consequences for the community in terms of adverse environmental, social and economic impacts and as such, appropriate technical assessments and the development of mitigation measures should have been included in the Draft EIS.</p> <p>In general, most technical chapters fail to identify and commit to specific and appropriate mitigation measures required as a result of adverse impacts from the proposed project. The majority of the mitigation measures provided are in very general terms such as makes good or state that the issue will be addressed during the detailed design phase. This is not considered sufficient to meet the requirements of TOR 5.1.</p>	<p>The Draft EIS requires update to appropriately identify all potential impacts (including cumulative impacts) to environmental, social and economic aspects and propose and commit to adopting appropriate and real mitigation measures.</p> <p>The update of the Draft EIS should include, but not be limited to, committing to the development of appropriate monitoring locations and baselines for all measurable and proposed adverse environmental, social and economic impacts resulting from proposed project activities and the development of associated and appropriate monitoring programs for the operational phase.</p>	<p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>As described in the revised draft EIS at Chapter 1: Introduction, Section 1.5, between 23 January 2021 and 4 May 2021, the draft EIS was made available for public comment under Section 33 of the SDPWO Act and public submissions were received. Terms of reference compliance has been updated for the revised draft EIS in Appendix A2: Terms of Reference - Cross Reference Table. On 4 January 2022 the Coordinator-General requested additional information under Section 34B(2) of the SDPWO Act. The Office of Coordinator-General additional information requirements and the proponent's (ARTC) responses to the public submissions received comprise the basis of assessment for the revised draft EIS.</p> <p>Chapter 3: Legislation and Project Approvals Process, Section 3.21 states that an EIS provides the Coordinator-General with a framework to ensure appropriate environmental management and monitoring programs to avoid, minimise, mitigate or offset any adverse impacts.</p> <p>Chapter 4: Assessment Methodology, Section 4.1 states that the assessment methodology has been established to provide a structured and objective approach to identifying environmental, social and economic impacts and opportunities, develop effective mitigation and management measures, and maximise the benefits of the Project.</p> <p>The approach for each specific matter addressed in Chapters 8 to 22 is provided in Chapter 4: Assessment Methodology, Section 4.2 and included:</p> <ul style="list-style-type: none"> Fieldwork was undertaken to identify and/or ground truth existing environmental conditions and sensitive receptors Potential impacts and opportunities were identified in accordance with the selected impact assessment method and assessed using criteria set out in legislation, statutes, guidelines or policies. Where such criteria do not exist, the assessment was based on industry standards and professional judgement. Mitigation and management measures were documented in Chapter 8 to Chapter 22 and consolidated in Chapter 24: Draft Outline Environmental Management Plan in accordance with Chapter 4: Assessment Methodology, Section 4.6. <p>Impact Assessment methods are provided in Section 4.4 of Chapter 4: Assessment Methodology. This includes discussion of general Project or targeted monitoring programs.</p> <p>The revised draft EIS compliance with the terms of reference is documented in Appendix A2: Terms of Reference - Cross Reference Table.</p>	<p>Chapter 1: Introduction Section 1.5 Chapter 3: Legislation and Project Approvals Process Section 3.21 Chapter 4: Assessment Methodology Section 4.1 Section 4.2 Section 4.4 Section 4.6 Chapter 5: Project Description Section 5.3.3 Chapter 24: Draft Outline Environmental Management Plan Appendix A2: Terms of Reference - Cross Reference Table</p>
218	218.0017	Local Government	Project scope		<p>Project timing: The Draft EIS was issued for public consultation in February 2021 with responses due by 19 April 2021. In relation to the required Inland Flood Study, the OCGs website states that the findings of the Expert Panel Inland Flood Study Group will be finalised by the end of 2021. The Draft EIS suggests that design will be completed by Q2 2021, with construction commencing in Q4 2021, which would be prior to the finalisation of the Study Group findings.</p> <p>The Draft EIS does not address how construction can commence when the Flood Study findings have not been received or incorporated into proposed project activities. Further, given the period of time which will be required to appropriately address Draft EIS submissions, complete any further investigations and reviews that might be required, gain subsequent regulatory approvals and finalise design in accordance with those approvals, the timeline provided in the Draft EIS is not considered to be realistic. Given this, the Draft EIS does not adequately describe the proposed timing of the works (as required by TOR 10.1(k)).</p>	<p>The Draft EIS should be revised to meet the requirements of TOR 10.1(k) and provide realistic timing for the proposed project, and to appropriately consider the findings of the flood panel and any further studies that are required to finalise the EIS and accurately assess the potential impacts and mitigation requirements for the project.</p> <p>Construction and approvals should not commence prior to the finalisation of all required technical studies including but not limited to the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Review. Construction timeframes require reassessment to be appropriate to regulatory requirements and timeframes.</p>	<p>A revised schedule has been provided in the revised draft EIS at Chapter 5: Project Description, Section 5.3.6. Pre-construction activities and early works are undertaken prior to full mobilisation of the contractor. These works may be undertaken under a separate contract but will not commence until the Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) has been approved by the Coordinator-General and the Australian Government Minister for the Environment, and the relevant early works Construction Environmental Management Plan (CEMP) has been endorsed by the Environmental Monitor.</p> <p>The anticipated timing of stages for the Project are shown in Table 5-3.</p> <p>The Independent International Panel of Experts for Flood Studies (the Panel) has submitted a final report, dated 6 September 2022. The report has been made available and is publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au).</p> <p>The report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the four Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> providing additional information which addressed the queries raised completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) recommending that some issues raised are dealt with at Detailed Design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next Steps</p> <ul style="list-style-type: none"> ARTC have committed to implement the Panel's six recommendations outlined in the Final Report. ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project Approvals and Corridor Acquisition, Detailed Design, Construction Works, Operations). A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>(Extracts from tmr.qld.gov.au/projects/inland-rail/independent-panel-of-experts-for-flood-studies-in-queensland)</p> <p>Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	<p>Chapter 5: Project Description Section 5.3.6 Table 5.3 Chapter 14: Flooding and Geomorphology Section 14.4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix A to D</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0018	Local Government	Traffic and Transport		<p>Network connectivity and legal access to properties: The Draft EIS does not consider all locations where the proposed rail alignment crosses the public road reserve network. Further, the Draft EIS states that where a road-rail interface is unable to be provided, an alternative access route has been proposed. However, no alternatives have been provided to ensure the continuity of the existing public road reserve network (including, where roads are not currently constructed) or to ensure legal access to properties is maintained.</p> <p>This may require the provision of new road reserves to maintain connectivity of the existing public road network.</p> <p>The Draft EIS does not adequately address any cumulative impacts on the wider transport network and therefore does not meet the requirements of TOR 11.109.</p>	nil.	<p>Where the Project crosses the public road network, impacts to the diversion of traffic, and the local road network, have been assessed in Appendix AA: Traffic Impact Assessment, Section 5.9. This section explores all cases where the Project alignment results in a change to the road alignment, network and the proposed impacts and solutions. Where deemed feasible, this includes new road realignments and reserves in order to maintain connectivity and mitigate the impacts of the Project.</p> <p>A qualitative and quantitative assessment of the cumulative impacts has been included in Appendix AA: Traffic Impact Assessment, Section 5.11.</p> <p>The qualitative cumulative impact assessment includes determining the relevance, impact significance of the identified projects and suggested mitigation measures. During detailed design, once the construction method (including material sources and quantities) and the finalised construction routes have been determined, the traffic impact assessments will be updated and include other developments and activities in the region that may contribute to background traffic volumes over the construction period for the Project. These will be identified and confirmed in consultation with Goondiwindi and Toowoomba Regional Councils as well as DTMR.</p> <p>The quantitative cumulative impact assessment has been undertaken considering the complete Inland Rail construction from North Star to Border to Kagaru to Acacia Ridge/Bromelton. The study area considers the overlap of other Inland Rail packages with the proposed the Project construction routes across the complete construction timeframe over the 6 packages. Key assessments influenced by volumes have been reassessed as part of the cumulative impact assessment, including the:</p> <ul style="list-style-type: none"> ▶ Road safety assessment ▶ Intersection assessment ▶ Road link capacity assessment ▶ Pavement assessment <p>For the safety, intersection, and road link capacity assessments, analysis was undertaken where peak hour volumes experienced a change. All road links and intersections with no volume change are considered to be assessed in the 'Project only' assessment covered in the previous sections of Appendix AA: Traffic Impact Assessment. This was considered appropriate as without a change in peak hour volumes between 'Project only' and the cumulative assessment, the intersections and road links impacts are considered identical.</p> <p>For the pavement assessment, analysis was undertaken for all road links. This was undertaken as the pavement assessment considers the total yearly impact of HVs on the pavement. With regard to the road alignment changes and diversions:</p> <p>Where the Project crosses the public road network, impacts to the diversion of traffic, and the local road network, have been assessed in Appendix AA: Traffic Impact Assessment, Section 5.9. This section explores all cases where the Project alignment results in a change to the road alignment, network and the proposed impacts and solutions. Where deemed feasible, this includes new road realignments and reserves in order to maintain connectivity and mitigate the impacts of the Project.</p> <p>A qualitative and quantitative assessment of the cumulative impacts has been included in Appendix AA: Traffic Impact Assessment, Section 5.11.</p> <p>The qualitative cumulative impact assessment includes determining the relevance, impact significance of the identified projects and suggested mitigation measures. During detailed design, once the construction method (including material sources and quantities) and the finalised construction routes have been determined, the traffic impact assessments will be updated and include other developments and activities in the region that may contribute to background traffic volumes over the construction period for the Project. These will be identified and confirmed in consultation with Goondiwindi and Toowoomba Regional Councils as well as DTMR.</p> <p>The quantitative cumulative impact assessment has been undertaken considering the complete Inland Rail construction from North Star to Border to Kagaru to Acacia Ridge/Bromelton. The study area considers the overlap of other Inland Rail packages with the proposed the Project construction routes across the complete construction timeframe over the 6 packages. Key assessments influenced by volumes have been reassessed as part of the cumulative impact assessment, including the:</p> <ul style="list-style-type: none"> ▶ Road safety assessment ▶ Intersection assessment ▶ Road link capacity assessment ▶ Pavement assessment <p>For the safety, intersection, and road link capacity assessments, analysis was undertaken where peak hour volumes experienced a change. All road links and intersections with no volume change are considered to be assessed in the 'Project only' assessment covered in the previous sections of Appendix AA: Traffic Impact Assessment. This was considered appropriate as without a change in peak hour volumes between 'Project only' and the cumulative assessment, the intersections and road links impacts are considered identical.</p> <p>For the pavement assessment, analysis was undertaken for all road links. This was undertaken as the pavement assessment considers the total yearly impact of HVs on the pavement.</p>	Appendix AA: Traffic Impact Assessment Section 5.9 Section 5.11
218	218.0019	Local Government	Traffic and Transport	Road safety	<p>Road-over-rail bridges pedestrian access: The Draft EIS states that no public pedestrian access is proposed to be provided on road-over-rail bridges yet it shows protection screening on diagrams depicting typical road-over-rail bridges.</p> <p>The Draft EIS traffic impact assessment does not assess pedestrian needs, other than by stating that these may be co-located with local roads and including notations that no provision for pedestrians is proposed (other than the roads themselves).</p> <p>TRC requires separate public pedestrian access for all road-over-rail bridges in order to ensure the safe movement of pedestrians and non-vehicular traffic in its regional areas.</p> <p>The Draft EIS has not appropriately addressed active transport or prepared mitigation strategies in close consultation with the relevant local government (TRC). Therefore the Draft EIS has not met the requirements of TOR 11.112 or 11.116.</p>	<p>The Draft EIS should commit to delivering separated public pedestrian and non-vehicular access on all road-over-rail bridges.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to reach written agreement with TRC regarding the provision of separate pedestrian access on all proposed road-over-rail bridges at least six months prior to the commencement of any construction activities.</p>	<p>The submission references the Project Description 'road over rail bridge' detail with protection screens. ARTC notes that this diagram is indicative only and does not represent all possible grade separation design scenarios. In developing the design further with Council, ARTC refers to a more suitable clause within the Guide to Road Design Part 6A: Paths for Walking and Cycling that states: "the need for pedestrian paths should also be related to the pedestrian network functional requirements. For example, the presence of pedestrians on many rural roads is a rare event and the provision of paths is not economically justified. In this situation the provision of shoulders will provide space for a pedestrian who happens to use the road."</p> <p>The advice suggests that using road shoulders as an acceptable measure is rare but can be considered. Additionally, the need for pedestrian paths should be determined based on the functional requirements of the pedestrian network. In the case of rural roads, where the presence of pedestrians is infrequent and is not part of the formal planning network, the provision of dedicated paths is not economically justified. This will be further agreed within technical forums as part of third party agreement discussions (Appendix AA: Traffic Impact Assessment).</p>	Appendix AA: Traffic Impact Assessment
218	218.0020	Local Government	Project alignment	Blasting	<p>Impacts to existing rail corridors disconnected sections: The reference design illustrates several locations where the existing South Western System alignment will be taken over or intercepted by the proposed rail alignment, with or without interconnections provided (generally between Millmerran and Pittsworth).</p> <p>The Draft EIS contains no information as to what will happen with disconnected sections of existing QR rail line. And as a result, has not adequately addressed how the proposed project will affect the existing rail (as required by TOR 11.112).</p>	<p>The Draft EIS should be updated to adequately discuss how the proposed project will affect existing rail systems such as the South Western Line and the Millmerran Branch Line to meet the requirements of TOR 11.112.</p>	<p>The issue with the "disconnected sections" of rail corridor is noted.</p> <p>Any outstanding issues with the existing network will be resolved during detailed design. ARTC are expecting significant involvement and engagement from QR in the future. It is further contemplated that QR and ARTC will enter into formal Interface Agreements (as required by Rail Safety National Law) to ensure the safe design, construction and operation of both networks in accordance with their respective Notices of Accreditation underwritten by their approved Safety Management Systems (Chapter 3: Legislation and Project Approvals, Section 3.425).</p> <p>As part of ARTC's ongoing engagement with QR and DTMR, the roles and responsibilities regarding the Rail Infrastructure Manager (RIM) during Detailed Design, Construction Works and Operations will be clarified.</p> <p>ARTC anticipate the roles and responsibilities in relation to RIM status will be resolved prior to construction through a signed agreement. However, agreement in principle is expected to be known significantly earlier, which would enable appropriate discussions during Safety in Design (SiD) workshops during detailed design.</p>	Chapter 3: Legislation and Project Approvals Process Section 3.425
218	218.0021	Local Government	Traffic and Transport	Infrastructure crossings/ interaction	<p>Road-Rail Intersections proposed road-rail interfaces not acceptable to TRC: The Draft EIS and reference design identifies 36 local road-rail interfaces, and proposes to create 10 new passive level crossings, 5 new active level crossings and 6 grade separated crossings, with no crossings or consolidations, diversions or closures of local roads proposed at the remaining 15 locations.</p> <p>The number of proposed new passive and proposed new active level crossings is inconsistent with the Office of the National Rail Safety Regulator's (ONRSR) Level Crossings Policy, as follows: Section 9.1 of the ONRSR Policy (No new level crossings) states, in part, that ONRSR does not support the construction of new level crossings and strongly encourages governments and industry to commit to a firm policy of no new level crossings.</p> <ul style="list-style-type: none"> ▶ Section 9.2 of the ONRSR Policy (Expectations for infrastructure planning) states, in part, that ONRSR expects that projects in either greenfield (new) or brownfield (existing) locations do not propose the construction of new level crossings. Brownfield projects should also include assessment of the potential to close any existing level crossings and, if they are to remain, demonstrate that safety will be ensured SFAIRP. (Note: in the policy, SFAIRP means so far as is reasonably practicable.)The Queensland Level Crossing Safety Strategy 2012-2021 (Strategy 9) states the clear objective of adding no further open level crossings to the rail network. The Office of the National Rail Safety Regulator has a Level Crossing Policy. <p>TRC does not support the use of passive level crossings at any new road-rail interfaces or any re-purposed existing road-rail interfaces, whether supported by Australian Level Crossing Assessment Model (ALCAM) outputs or not.</p> <p>TRC has not, at the time of making this submission, agreed in-principle, or otherwise, with any of the proposed road-rail interfaces, or any of the consolidations, diversions or closures of local roads proposed in the Draft EIS.</p> <p>The Draft EIS has not adequately addressed:</p> <ul style="list-style-type: none"> ▶ The impacts of the Project on individual road/rail crossings and any cumulative impacts on the wider transport network, as required by TOR 11.109. ▶ Mitigated impacts proposed to be created by new railway level crossings in close consultation with relevant local governments (in this submission, TRC), as required by TOR 11.115 and 11.116. 	<p>The Draft EIS should be amended to align with the desired outcomes of the Federal Rail Safety Guidelines, the Queensland Level Crossing Safety Strategy 2012-2021 and ONRSR's Level Crossings Policy 2019 through the inclusion of a commitment to maximise the number of grade-separated road-rail interfaces and to provide active level crossings (as an absolute minimum) at all proposed new at-grade road-rail interfaces.</p> <p>Further, the proponent should continue to develop the design of local road-rail interfaces in close consultation with TRC and reach agreement with TRC in relation to all new road-rail interfaces and all consolidations, diversions or closures of local roads at least six months prior to the commencement of construction.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to develop the design of local road-rail interfaces in close consultation with TRC, and to reach written agreement with TRC in relation to all new road-rail interfaces, all consolidations, all diversions and all closures of local roads at least six months prior to the commencement of any construction activities.</p> <p>TRC requests that at-grade separate crossings the height and width of both oversize vehicles and agricultural vehicles are catered for.</p>	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC also note the submission references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> ▶ The Office of the National Rail Safety Regulator's (ONRSR) Level Crossing policy (ONRSR, 2019) ▶ Queensland Level Crossing Safety Strategy 2012-2021 <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach completes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Office of Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes.</p> <p>Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>ARTC will continue to work collaboratively with TRC, GRC and DTMR as detailed design progresses regarding the proposed level crossing design solution. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Section 5.8 Section 5.9 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0022	Local Government	Traffic and Transport	Infrastructure crossings/ interaction	<p>Bridge Clearances not adequately addressed: The Draft EIS identifies that rail-over-road bridges will have a minimum vertical clearance as required by the road asset owner, and that bridge clearances have been established in consultation with the owners of existing assets over which the bridge structures span.</p> <p>However, the Draft EIS and reference design does not adequately address horizontal clearances at rail-over-road bridge structures.</p> <ul style="list-style-type: none"> TRC's position is that road reserves should not be encumbered, horizontally, in any way, by proposed bridge structures, and that vertical clearances should not compromise over-size or overmass (OSOM) vehicle movements where reasonable alternative routes are not available. <p>TRC has not, at the time of making this submission, agreed to or approved in-principle, any of the proposed vertical clearances at any of the proposed bridges shown in the reference design.</p> <p>In addition, all proposed bridge structures and associated componentry should be delivered containing the maximum reasonable amount of empty service ducts to allow for, without limitation, future utility infrastructure such power cabling, telecommunications networks infrastructure, water and sewerage network infrastructure.</p> <p>The Draft EIS has not adequately outlined mitigation strategies in close consultation with relevant local governments (TRC) (as required by TOR 11.116).</p>	<p>The proponent should continue consulting with TRC regarding horizontal and vertical bridge clearances and commit to addressing these impacts to TRCs satisfaction. The proponent should include allowance in all bridge structures for utilities.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to consult with TRC regarding horizontal and vertical bridge clearances and to reach written agreement with TRC in relation to bridge clearances at least six months prior to the commencement of any construction activities.</p>	<p>Development of the revised reference design for the Project has progressed in parallel with the impact assessment process. As a result, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the revised reference design as appropriate and where possible.</p> <p>ARTC has continued to engage with Council to further develop the technical criteria around bridge clearances in the vertical and horizontal plane around road rail interfaces. This will continue through the future design stages to achieve the road manager approval.</p> <p>Mitigation measures and controls that have been factored into the design, or otherwise implemented during the revised reference design stage for the Project, are summarised in Section 20.6.1 Table 20.50 of Chapter 20: Traffic, Transport and Access. This documents that Bridge clearances have been established in consultation with the owners of existing assets over which the bridge structures span (i.e. DTMR, local councils and private landowners).</p> <p>Once the construction routes have been confirmed at the next stage of the project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	<p>Chapter 20: Traffic, Transport and Access Section 20.6.1 Table 20.50 Appendix AA: Traffic Impact Assessment Section 6.2</p>
218	218.0023	Local Government	Traffic and Transport	Infrastructure crossings/ interaction	<p>Rail Network Infrastructure interfaces with existing QR network and removal of obsolete level crossings. The Draft EIS states that the proposed project will utilise 46.8 km of the existing South Western Line and 24.4 km of the Millmerran Branch Line (approximately). The document does not however clarify which sections of the remaining South Western Line and Millmerran Branch Line will remain operational or consider all rail lines whether they be disused, what will happen with the sections of rail line that become disconnected and non-operational, or who is considered responsible for removing obsolete level crossings. TRC should not be considered responsible for the costs of removing infrastructure at QR road-rail interfaces made obsolete by the proposed project. The lack of clarification over this topic is unacceptable to TRC.</p> <p>Given this, the Draft EIS has not adequately assessed the impacts of the proposed project on the wider transport network or ensured that mitigation strategies will be prepared in close consultation with relevant local governments (TRC) and therefore does not meet the requirements of TOR 11.109 and 11.116.</p>	<p>The Draft EIS requires amendment to define all corridors inclusive of currently operational and disused lines including which sections of the remaining South Western Line and Millmerran Branch Line will become non-operational and to identify opportunities including the connection, reuse or repurpose of disused rail lines and to propose mitigation measures, including the removal of obsolete level crossings on sections of rail line that become disconnected.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.23 discusses the Projects interface with existing Queensland Rail Infrastructure. As part of ARTCs ongoing engagement with QR and DTMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) obligations during Detailed Design, Construction and Operation will be clarified. Any necessary interface agreements with QR will also be in place prior to the commencement of construction.</p> <p>Appendix AA: Traffic Impact Assessment, Section 4.2.1 explains routes have been identified for the diversion of materials which would otherwise be transported by rail, however, will be restricted in train movements during the construction of the Project. The following assumptions have been considered by ARTC for the construction of the rail line:</p> <ol style="list-style-type: none"> If the Project utilises the option of road freight for grain and other domestic products during the construction of the QR lines, then the track will be closed between certain sections for the length of construction period. Sections of QR track that would be closed: <ul style="list-style-type: none"> South Western Line: Whetstone to Thallon Millmerran Branch Line: Millmerran to Pittsworth Alternatively, the Project may elect to construct offline (physically separated from the existing track) through the brownfield corridors, under track closures and possessions. In doing so, the Project would not require the use of road freight for the transportation of grain and/or other domestic commodities. <p>For the purpose of the TIA, it has been conservatively assumed that the Project will require complete closure of the QR lines at the locations specified in Option 1, above. This option requires redirection of all items which would otherwise be travelling via rail, increasing the traffic movements on the road possibly substantially, particularly during peak harvest season.</p> <p>Appendix AA: Traffic Impact Assessment Section 3.2 reiterates the assumption for temporary possession of the existing rail corridors for the duration of construction and ARTCs ongoing engagement with QR and DTMR.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.23 Section 4.2.1</p>
218	218.0024	Local Government	Project alignment	Infrastructure crossings/ interaction	<p>Utilities provision of adequate road reserve: The Draft EIS identifies that there are 656 utility interfaces within the footprint of the proposed project (utilities are commonly located in road reserves).</p> <p>The Draft EIS does not however identify how utility interfaces will be addressed at road-rail interfaces, or whether the proposed project provides sufficient road reserve at road-rail interfaces to accommodate utility requirements without adversely impacting the utility or imposing additional cost on TRCs ability to construct or upgrade utilities or roads in the future.</p> <p>As a result, the Draft EIS has not adequately assessed the impacts of the project on individual road-rail crossings (required by TOR 11.109).</p>	<p>The Draft EIS should be amended to identify utility interfaces at all local road-rail interfaces and commit to providing sufficient project footprint to accommodate local utility and road requirements to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition: The proponent is required to consult with TRC regarding utility interfaces at all road-rail interfaces and to reach written agreement with TRC in relation to providing sufficient project footprint to accommodate local utility and road requirements at least six months prior to the commencement of any construction activities.</p>	<p>ARTC have adopted a 5 m allowance on each side of the formed road for all impacted road corridors to ensure there is sufficient width to accommodate utility requirements.</p> <p>As described in Section 5.4.8 in Chapter 5: Project Description, general likely utility interface treatment types are: protection, relocation/realignment or no treatment where the revised reference design can be configured to avoid direct impacts to the utility. These proposed utility interface treatment types are also applicable to road rail interfaces.</p> <p>All utility owners have been consulted by ARTC during the reference design process to establish potential interface impacts and to identify design solutions. Details of consultation are outlined in Appendix E: Consultation Report.</p> <p>Prior to construction commencing, the relevant land owners (i.e. easements, road corridor, private property) including Councils, DTMR and utility owners are required to endorse/approve all proposed utility treatments/designs within land under their management and control.</p> <p>This includes for temporary roads, haul roads etc as well as permanent roads.</p> <p>ARTC will continue consultation with key stakeholders including Councils, DTMR into the Detailed Design stage.</p>	<p>Chapter 5: Project Description Section 5.4.8 Appendix E: Consultation Report</p>
218	218.0026		Project scope		<p>Rail design standards Reference design: The Draft EIS identifies that the reference design is generally based on the General alignment standards (grades of 1:100 target, 1:80 maximum) but that Medium speed alignment standards (grade of 1:50 maximum) may be applied in mountainous terrain. The reference design is based on the General alignment standards, with no instances of Medium speed alignment standards and contains numbers of locations where changes to the vertical grade and/or relaxation of the maximum vertical grades has the potential to significantly change:</p> <ul style="list-style-type: none"> The nature and location of road-rail interfaces (between grade-separated, at-grade, consolidations, diversions or closures); Land acquisition requirements; Drainage requirements; Noise impacts; and Other matters. <p>It is therefore considered unlikely that the reference design will be maintained through the design and construction phases of the proposed project, as contractors will endeavour to deliver value for money outcomes through changes to the proposed vertical alignment.</p> <p>The reference design cannot therefore be relied upon to assess the impacts of the project on individual road-rail crossings or any cumulative impacts on the wider transport network and as a result, the Draft EIS does not meet the requirements of TOR 11.109 (assess the impacts of the project on individual road/rail crossings and any cumulative impacts on the wider transport network).</p>	<p>The Draft EIS should be updated to refine and finalise the vertical alignment of its reference design and reissue the reference design for further public consultation and engagement.</p> <p>The Draft EIS should also demonstrate how project contractors will be managed to ensure that the delivery of the proposed project will be according to the finalised reference design.</p>	<p>Since the reference design was developed, the rail vertical alignment has been reviewed to utilise more 1:80 grades as part of a value engineering exercise to improve Project outcomes such as road/rail interfaces and earthworks volumes. Although 1:50 grades for mountainous terrain was referenced in EIS documentation, these are not preferred by Inland Rail and may only be considered under extraordinary circumstances and subject to ARTC engineering review and approval. Chapter 5: Project Description, Section 5.3.3 provides a summary of changes to the reference design since the draft EIS and the basis of design.</p> <p>ARTC has consulted with TRC extensively on these proposed changes, all of which have been endorsed in technical officer forums. The updated EIS will also incorporate these changes within the updated documentation.</p> <p>Further improvement of the vertical alignment may be conducted during detailed design and within Inland Rail engineering standards, which will require further consultation with stakeholders and EIS change management processes where necessary.</p>	<p>Chapter 5: Project Description Section 5.3.3</p>
218	218.0026		Project scope		<p>Rail design standards Reference design: The Draft EIS identifies that the reference design is generally based on the General alignment standards (grades of 1:100 target, 1:80 maximum) but that Medium speed alignment standards (grade of 1:50 maximum) may be applied in mountainous terrain. The reference design is based on the General alignment standards, with no instances of Medium speed alignment standards and contains numbers of locations where changes to the vertical grade and/or relaxation of the maximum vertical grades has the potential to significantly change:</p> <ul style="list-style-type: none"> The nature and location of road-rail interfaces (between grade-separated, at-grade, consolidations, diversions or closures); Land acquisition requirements; Drainage requirements; Noise impacts; and Other matters. <p>It is therefore considered unlikely that the reference design will be maintained through the design and construction phases of the proposed project, as contractors will endeavour to deliver value for money outcomes through changes to the proposed vertical alignment.</p> <p>The reference design cannot therefore be relied upon to assess the impacts of the project on individual road-rail crossings or any cumulative impacts on the wider transport network and as a result, the Draft EIS does not meet the requirements of TOR 11.109 (assess the impacts of the project on individual road/rail crossings and any cumulative impacts on the wider transport network).</p>	<p>The Draft EIS should be updated to refine and finalise the vertical alignment of its reference design and reissue the reference design for further public consultation and engagement.</p> <p>The Draft EIS should also demonstrate how project contractors will be managed to ensure that the delivery of the proposed project will be according to the finalised reference design.</p>	<p>Since the reference design was developed, the rail vertical alignment has been reviewed to utilise more 1:80 grades as part of a value engineering exercise to improve Project outcomes such as road/rail interfaces and earthworks volumes. Although 1:50 grades for mountainous terrain was referenced in EIS documentation, these are not preferred by Inland Rail and may only be considered under extraordinary circumstances and subject to ARTC engineering review and approval. Chapter 5: Project Description, Section 5.3.3 provides a summary of changes to the reference design since the draft EIS and the basis of design.</p> <p>ARTC has consulted with Toowoomba Regional Council extensively on these proposed changes, all of which have been endorsed in technical officer forums. The updated EIS will also incorporate these changes within the updated documentation.</p> <p>Further improvement of the vertical alignment may be achieved during detailed design and within Inland Rail engineering standards, which will require further consultation with stakeholders and EIS change management processes where necessary.</p>	<p>Chapter 5: Project Description Section 5.3.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0027	Local Government	Waste and Resource Management	Spoil management	<p>Permanent stockpiles location: The Draft EIS proposes to temporarily stockpile excess material along the rail corridor and then form these stockpiles into permanent spoil mounds which are spread out to minimise height.</p> <p>The Draft EIS does not identify where permanent spoil mounds will be located or state that enough rail corridor is proposed to adequately accommodate and minimise the height of these spoil mounds. Further, while the document notes that all temporary laydown areas have the potential to be used for temporary stockpiling if required, it does not identify any area for the proposed permanent stockpiling of spoil material.</p> <p>The proposed rail corridor illustrated on the reference design is relatively narrow compared to the volumes of unusable cut material being excavated and proposed to be stockpiled.</p> <p>As a result, it is considered that the Draft EIS does not adequately address the rehabilitation of affected areas after construction as required by TOR 10.10(p) and 11.87.</p>	The Draft EIS should be updated to identify all locations where permanent spoil mounds will be located and to demonstrate that enough rail corridor will be provided to adequately accommodate and minimise the height of these mounds.	Spoil storage areas are discussed in Section 22.5.2.2 of Chapter 22: Waste and Resource Management. Excess spoil will be directly transported to a point of immediate reuse within the Project footprint to avoid stockpiling and double handling. In the event that immediate transportation and local reuse is not possible, the material will be temporarily stockpiled along the Project right of way established for construction or within designated laydown areas. Laydown areas have been pre-determined in Table 2.7 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan.	Chapter 22: Waste and Resource Management Section 22.5.2.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Table 2.7
218	218.0028	Local Government	Editorial		Construction activities: Section 6.3.1 of the executive summary needs to be updated to be consistent with the construction schedule provided in Section 5.4.2 of the Draft EIS.	The Draft EIS requires updating to meet the requirements of TOR 5.1 and to ensure there is consistency between the construction schedules in the executive summary and Section 5.4.2.	Construction schedule in Executive Summary and Chapter 5: Project Description, Section 5.3 have been revised and made consistent.	Executive Summary Chapter 5: Project description Section 5.3
218	218.0030	Local Government	Traffic and Transport	Construction traffic	<p>Precast concrete use of local roads: The Draft EIS identifies four concrete suppliers, three pre-cast suppliers, and two potential pre-cast yard (one either side of the Condamine Floodplain) locations within the TRC region.</p> <p>One of the precast suppliers nominated in Toowoomba (Rocla) closed over ten years ago and has now ceased supplying precast pipes and culverts across Australia creating a national shortage of these products.</p> <p>Being potential or assumed locations only, the Draft EIS cannot be relied upon as to whether precast piles, girders and other bridge components will be manufactured on-site, or whether these elements will be transported from suppliers in Brisbane or elsewhere. The current building boom and shortfall in pre-cast concrete products has meant these products have been transported to Queensland from as far as Victoria and Western Australia.</p> <p>The Draft EIS has nominated details of existing precast concrete suppliers that are out of date (for example, Rocla closed years ago) and the remaining existing precast supplier (Humes now being owned by Holcim) only produces precast culverts and pipes.</p> <p>Further, the Draft EIS provides no information regarding where precast bridge girders and other precast structural elements could be sourced.</p>	<p>The Draft EIS should be amended in order to identify all locations where precast bridge girders and other precast structural elements could be sourced, along with details of how the elements will be transported and lifted into position, what local roads will be used for transport and crane access, and to propose mitigation measures that are acceptable to TRC.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to consult with TRC regarding the structural elements of bridges and the transportation of same to site, and to reach written agreement with TRC in relation to these issues at least six months prior to the commencement of any construction activities.</p>	<p>As mentioned in the submission, two locations have been identified for the temporary siting of a precast concrete facility and concrete batch plant for the Project (Appendix AA: Traffic Impact Assessment). Whilst two locations have been nominated, only one plant is expected to be necessary to supplement the supply of concrete from established plants. The proposed locations are immediately north and south of the Condamine River floodplain outside the 1% AEP flood line.</p> <p>For the TIA, it has been assumed that all precast bridge girders required for bridges along the Project alignment will be delivered from the proposed Precast Concrete Facility and Batch Plant North (approximate Ch 150.5 km, near Brookstead).</p> <p>Routes are based on roads most likely to be used for the transportation of precast concrete considering input from the NHVR journey planner which provides guidance in identifying suitable roads for HVs. For the transportation of some of the larger precast concrete bridge girders, it is expected that police escort will be required. To reduce traffic impact, transportation will most likely have to occur outside busy daytime hours. Further discussion on the use of OSOM vehicles for the delivery of precast concrete bridge girders is provided in Appendix AA: Traffic Impact Assessment Section 5.7.3 and will require continued engagement with the road authorities.</p> <p>Appendix AA: Traffic Impact Assessment Section 3.5 discusses laydown area details including that at bridge locations there will be a dedicated laydown/work area that may include crane pads for the lifting of bridge members.</p>	Appendix AA: Traffic Impact Assessment Section 3.5 Section 5.7.3
218	218.0031	Local Government	Traffic and Transport	Construction traffic	<p>Construction water and sourcing use of local roads: While it is acknowledged that construction water will be sourced by the construction contractor, the Draft EIS contains only generalised statements regarding the process of sourcing construction water and does not adequately identify which TRC roads will be used for transporting this water to site. As a result, the document has not adequately identified how project transport will affect existing transport infrastructure at the local level as required by TOR 11.113.</p>	<p>The Draft EIS should be amended to meet the requirements of TOR 11.113 and include the location of proposed construction water sources, which TRC roads will most likely be used for the transport construction water, and to propose mitigations measures that are acceptable to TRC.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to ensure that the construction contractor consult with TRC regarding the sourcing and transport of construction water and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities.</p>	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment Section 4.2.2 discusses water sources and routes:</p> <p>ARTC recognises water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process detailed water demand planning will be undertaken, including detailed contingency options in the event that protracted dry seasonal conditions prevail and water supply options become unavailable. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p> <p>The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan and be dependent on:</p> <ul style="list-style-type: none"> ▶ Climatic conditions in the lead up to construction ▶ Confirmation of private water sources made available to the Project by landowners under private agreement ▶ Confirmation of access agreements with local governments for sourcing of mains water. <p>Options for the sourcing of construction water, subject to availability, are anticipated to be as follows:</p> <ul style="list-style-type: none"> ▶ Commercial, licenced water supplies where capacity exists ▶ Public surface water storages, i.e., dams and weirs ▶ Permanently (perennial) flowing watercourses ▶ Privately held water storages, i.e., dams or ring tanks, under private agreement ▶ Existing registered and licenced bores ▶ Treated water, e.g., from wastewater treatment plants ▶ New bores established to service the Project under appropriate water licence or entitlement (least preferred option). <p>An assessment of the suitability of each source will need to be made for each construction activity requiring water, based on the following considerations:</p> <ul style="list-style-type: none"> ▶ Legal access ▶ Volumetric requirement for the activity ▶ Water quality requirement for the activity, e.g., facilities will need potable water ▶ Source location relative to the location of need. <p>Construction water will be supplied to various points along the alignment by water trucks (Austroads Class 7 vehicles) for activities including earthworks, haul road maintenance, dust suppression, track works and concrete batching. For the purpose of incorporating the delivery of water into the TIA, the assessment has considered the supply of water from public water storages (dams and weirs). This logic will need to be revised once the construction water strategy for the Project is confirmed during detailed design. Appendix AA: Traffic Impact Assessment Table 4.4 provides an overview of water truck movements per year on each of the road links, while the proposed construction transport routes for water are illustrated in Appendix AC: Water Construction Routes of the revised draft EIS Appendix AA: Traffic Impact Assessment. For the purpose of this TIA, water has been considered in a uniform delivery schedule.</p>	Appendix AA: Traffic Impact Assessment Section 4.2.2 Table 4.4 Appendix AC Appendix B5: Construction Water Requirements
218	218.0032	Local Government	Traffic and Transport	Construction traffic	<p>Mass haulage and borrow material use of local roads: While the Draft EIS identifies that local roads will only be used where essential it also states that haul distances greater than 5 km will require the use of either road trains on gazetted roads and/or the use of dump trucks (where direct access to the rail corridor is available).</p> <p>Further, the Draft EIS identifies only 148,905 m3 of unusable cut (without treatment) of a total of 12,525,037 m3. If all unusable cut is able to be treated for re-use, then the total deficit for the proposed project will still be a significant 822,332 m3. The fill deficit is proposed to be met through the importation of appropriate material type from operational licensed quarries or from borrow pits (the only borrow pits shown being south of Millmerran).</p> <p>The Draft EIS identifies approximately 450,000 movements for materials (cut to fill, cut to spoil, general fill) and seven geographic areas within which material will be delivered to other areas, cut to spoil or imported. The Draft EIS does not otherwise identify how many of these movements are proposed for the rail corridor or which movements are proposed to be made on state and/or local roads.</p> <p>While some sections of the proposed rail corridor may be permitted by TMR to have direct access from State-controlled roads, most of the length can only be accessed in a first-mile last-mile sense by using local roads which are generally not gazetted for road trains and in many cases are not constructed to a suitable standard for the potential numbers of dump truck movements indicated by the mass haulage quantities provided.</p> <p>The Draft EIS does not identify what mitigation measures are proposed to address the mass haulage use of local roads. As a result, the document is not considered to have adequately addressed the impacts of the proposed project on the wider transport network, including how existing transport infrastructure will be affected by project transport at the local level or committing to ensuring mitigation strategies are prepared in close consultation with relevant local governments as required by TOR 11.109, 11.113 and 11.116.</p>	<p>The Draft EIS should be amended to meet the requirements of TOR 11.109, 11.113 and 11.116, to identify all local roads that are proposed most likely to be used for the mass haulage of materials for the proposed project, and to provide mitigation measures which are acceptable to TRC. Further, the document should include commitments to conduct road dilapidation surveys prior to the commencement of construction, an appropriate maintenance program and rehabilitation to original condition after construction activities have ceased.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to ensure that the construction contractor consult with TRC regarding the use of local roads for the mass haulage of construction material (including, but not limited to, commitments to conduct road dilapidation surveys prior to the commencement of construction, an appropriate maintenance program during construction, and rehabilitation to original condition or better after construction activities have ceased).</p> <p>and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities.</p>	<p>As stated in Appendix AA: Traffic Impact Assessment Section 5.12.1, Table 5.148 The horizontal and vertical alignment has been established to optimise the earthworks required and achieve as close to a net-balance as is possible. By minimising the material deficit for construction of the Project, the volume of material required to be imported has been reduced. Less imported material equates to fewer construction truck movements on public roads.</p> <p>Appendix AA: Traffic Impact Assessment Table 4.1 provides the cut to fill and cut to spoil break down while the management of spoil and number of trips are provided in Table 4.2.</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan of the revised draft EIS further detail spoil management for the Project.</p> <p>The mass haul quantities of fill and spoil have been estimated based on excavated volume of material, overlaid spatially and temporally across the Project. To generate a conservative number of heavy vehicle trips on the road network, a minimum of 10% of material excavated from each earthworks area has been allocated as spoil that cannot be reused and will need to be disposed of. A detailed assessment of material movement will form part of the mass haul assessment which will be carried out in the Detailed Design stage of the Project to determine the need for and viability of opportunities for material reuse.</p> <p>Any proposed mitigations identified within Appendix AA: Traffic Impact Assessment are the baseline mitigation measures for the Project. The appointed construction contractor will further develop the alignment design, determine their construction methodology and construction routes are finalised, specific mitigation measures on top of these baseline mitigations will be required to be developed and applied to the Project.</p> <p>A Traffic Management Plan (TMP) and Road Use Management Plan (RUMP) will be prepared for the Project in accordance with the GTIA to support works to the existing road network. This will be developed in consultation with DTMR, local councils and emergency service providers and will be finalised prior to the commencement of construction.</p> <p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ▶ ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. ▶ Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ▶ ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. <p>The agreed arrangements to deal with impacted pavements as a result of construction will exist between the Road Manager and ARTC.</p>	Appendix AA: Traffic Impact Assessment Section 5.12.1 Section 6.2 Table 4.1 Table 4.2 Table 5.148 Appendix AB: Earthworks Strategy and Draft Soil Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0033	Local Government	Land Use and Tenure		<p>Stock Routes continuation of stock movements: The Draft EIS has identified four stock routes within the TRC region which may potentially be impacted by the proposed project and has proposed measures (use of one passive level crossing and three rail-over-road bridges) to allow the continuation of stock movements along the roads at each location.</p> <p>However, it is not made clear whether the continuation of stock movements will be clear of the trafficked roads, and one measure (use of a passive level crossing) indicates that stock would actually use the road. As a result, the Draft EIS has not adequately addressed impacts on stock routes (as required by TOR 11.78).</p>	<p>The Draft EIS should be amended to meet the requirements of TOR 11.78 through committing to providing sufficient width at all stock route crossings to ensure that stock movements can be maintained clear of the trafficked road.</p>	<p>The Project interfaces with the State stock route network, which consists of stock routes and reserves, in 11 locations. In each instance, the reference design has been developed to provide continued connectivity along each stock route. The stock route interface treatments that have been included in the reference design are summarised in Chapter 8 Land Use and Tenure, Section 8.5.1 (Table 8-35). ARTC will continue to consult with DoR, GRC and TRC through the detailed design process to ensure that the proposed stock route interface treatments are suitable for future usability purposes.</p> <p>Consultation has taken place between ARTC, DoR, TRC and GRC with respect to redesign and management of stock routes following the construction of the Project. Refer to Appendix E: Consultation Report. Where the existing stock route crossings are impacted by the Project, at-grade, then level crossings will be provided. All level crossings will be designed to meet the current Australian, ARTC and road managers standards. Design features include, minimum 7.3 m stock crossing width, compliant sighting distances, crossing panels, warning signage, fencing and gates across the road approaches, but not across the tracks. Where the alignment is proposing to run linearly through an existing stock route, allowances have been made to widen the remaining route appropriately to ensure a corridor that is fit for the purpose of transport livestock.</p> <p>The revised reference design for the Project has endeavoured to maintain the integrity (connectivity and functionality) of the stock route network. In circumstances where the Project has the potential to impact on existing stock routes, ARTC has consulted with DoR, GRC and TRC to identify potential solutions for the treatment of rail and stock route interfaces. Outcomes of the several engagements have been summarised in Appendix E: Consultation Report and Appendix B2: Stock Routes.</p> <p>In the event that private stock routes are identified through consultation with landowners, a means of continued stock movement connectivity will be included in the detailed design. Where disruption to private stock movements may occur during construction, appropriate temporary connectivity solutions will be agreed in advance with the relevant landowner (Chapter 8: Land Use and Tenure, Table 8-51).</p> <p>Several risk workshops have been conducted to support the development of shared use level crossing designs for greenfield projects. Although the risk is low, we understand that the community is concerned about the potential for stock to access the railway corridor at a level crossing and then potentially getting hit by a train.</p> <p>To seek to address stakeholder concerns, ARTC is trailing a STRAIL grid system. ARTC has engaged a university to run the trail to assess the effectiveness of STRAIL grid in preventing stock from entering the rail corridor. STRAIL grid is a spiked matting system that can be installed across the surface of the track and does not present an obstruction risk to trains. ARTC welcome any involvement or further information on the trail that DoR would like. Should this trail be successful ARTC will include these at TSR crossings where they are required based on consultation with DoR and council. ARTC will continue to work collaboratively with DoR and council on the design solution for these locations during detailed design.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-35 Table 8-51 Appendix B2: Stock Routes Figures 1 - 26 Appendix E: Consultation Report Section 5.5.3</p>
218	218.0034	Local Government	Land Use and Tenure	Severance of agricultural land	<p>Acquisition: TOR 5.1 states that the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the project are identified and assessed</p> <p>The Draft EIS does not meet TOR 5.1 as it is inconsistent when providing the number of properties to be acquired, and how many properties will be directly impacted by the proposed project:</p> <ul style="list-style-type: none"> Section 7.1.1 of the Executive Summary and Table 7.2.4 (Section 7.6.1) states that 368 freehold properties will likely be acquired. Section 3.5.2 of the Draft EIS states that the permanent footprint for the proposed project will directly impact approximately 440 properties and the temporary footprint approximately 542. Chapter 15, Section 15.8.3.3 states assuming up to 20 households need to relocate The Stakeholder Engagement Report, Section 4.1.4 quotes 220 private landowners whose properties have been identified as being directly impacted by the Project <p>Further to this, the proponent stated on 23 February 2021 during an Information Session with TRC that they have already begun acquiring properties for the project.</p>	<p>The Draft EIS should clearly identify how many of these potentially impacted properties (either permanent or temporary) will actually be affected, and which of those will be acquired under the Acquisition of Land Act 1967 (AL Act) to meet the requirements of TOR 5.1. The proponent should ensure all data provided which relates directly to affected persons and properties is accurate and consistent throughout the Draft EIS.</p> <p>Further, if the proponent is indeed already in the process of acquiring properties for the proposed project, this raises concerns for TRC in relation to the current proposed alignment and the issues relating to the Condamine River Floodplain and Class A and B agricultural land. The Draft EIS should state how and why properties may be acquired prior to completion of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland and acquiring all necessary regulatory approvals for the project.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>Upon completion of construction activities and in a progressive manner, the proponent is required to return any acquired land back to Class A and/or Class B agricultural land that is surplus to the project need.</p>	<p>ARTC are currently consulting with affected landowners and negotiating acquisition of land where required.</p> <p>EIS to be updated with latest acquisition details, noting that the Project is progressing through detailed design and minor changes may be required. Specific detail cannot be provided however as this information is commercial in confidence.</p> <p>The revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1 has been updated and states that the rail alignment has been intentionally located to use the existing South Western Line and Millmerran Branch Line rail corridors, where possible, minimising the extent of 'new' properties to be acquired. Of the 495 properties within the permanent footprint, 47 are within the existing South Western Line and Millmerran Branch Line rail corridors (Table 8-36). Additional properties may also be acquired where certain impacts cannot be avoided or appropriately mitigated and/or acquisition is agreed upon in consultation with affected landowners.</p> <p>Ongoing consultation with affected landowners, and the wider communities, will be undertaken in accordance with ARTC's consultation plan, as discussed in Chapter 6: Stakeholder Engagement. Negotiation of land acquisition will be undertaken in accordance with the Acquisition of Land Act 1967 (Qld), which includes the process for the resumption of land by a constructing authority (Department of Transport and Main Roads) and compensation. A summary of land within the permanent footprint that will potentially be subject to full or partial acquisition is provided in Table 8-36 of Chapter 8: Land Use and Tenure and a detailed record of all impacted properties is in Appendix F: Impacted Properties. The extent of land acquisition will be confirmed following completion of the detailed design.</p> <p>Assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Costs attributable to Compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. <p>During construction, land will be acquired temporarily in accordance with the Acquisition of Land Act 1967 (Qld). Purchasing or leasing arrangements for these properties will be investigated in consultation with relevant landowners.</p> <p>With regards to flooding, where changes to surface water and hydrology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Chapter 13: Surface Water). The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land.</p> <p>Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landowners.</p>	<p>Chapter 6: Stakeholder Engagement Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Table 8-36 Chapter 13: Surface Water Appendix F: Impacted Properties Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p>
218	218.0035	Local Government	Editorial		<p>Inconsistency in Draft EIS: TOR 5.1 states that the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the project are identified and assessed.</p> <p>Section 7.1.1 of the Executive Summary states that one third of the proposed project will involve the upgrade of the existing rail corridor with the balance to be co-located with existing road infrastructure or will be established on land that, by and large, has been subject to previous disturbances for agricultural purposes. This wording is misleading and gives the reader the impression that the greenfield Section of the proposed project will be primarily constructed within existing road infrastructure, which is not the case.</p> <p>Table 14 (Tenure within the impact assessment area) provides the following data:</p> <ul style="list-style-type: none"> Freehold land - 70.8% permanent and 72.6% temporary impact. Road type parcels (existing road infrastructure) 16.3% permanent and 22.1% temporary impact. <p>Figures provided in Chapter 3, Section 3.5.2.2, Table 3.3 (Tenure within the project footprint) and Chapter 7, Section 7.5.1 (Land tenure), Table 7.4 cites different figures (72.6% for freehold land and 22.1% for road type parcels), inconsistent with Table 14 of the Executive Summary.</p> <p>The Draft EIS does not acknowledge the fact that the majority of the proposed greenfield alignment will actually be predominantly located in freehold land, that is Class A and B agricultural land. The document also fails to address impacts to agricultural land use such as the creation of fragmented farmland resulting in reduced efficiencies for farming practices as a result of the current proposed alignment, including, but not limited to, impacts such as:</p> <ul style="list-style-type: none"> Significantly increased water flows across farmland during severe storm/flood events; Increased and changed sedimentation and erosion events; Changes to land management practices and the use of equipment etc. <p>In addition, while the agricultural land in question has been previously disturbed, it still has high value from a primary production perspective. Chapter 7, Section 7.5.2 (Land use), Table 7.9 (existing land use within the project footprint (based on QLUMP data)) states that transport and communication (road and other infrastructure reserves) will comprise 1.3% of the permanent footprint and 3.2% of temporary, while agricultural uses (grazing, cropping, irrigated cropping) total 86.8% of the permanent, and 85.3% of the temporary footprint. This Table indicates that there is a substantial difference between the two land uses (agriculture and transport). This should be highlighted when referring to the current proposed alignment of the rail corridor and existing land use. Further, the Draft EIS notes (in Table 7.9s footnote) that the dataset was not modified where localised inaccuracies occur. This gives the reader the impression that inaccuracies exist and may be significant, without explicitly stating that this is the case.</p> <p>between the two land uses (agriculture and transport). This should be highlighted when referring to the current proposed alignment of the rail corridor and existing land use.</p> <p>Further, the Draft EIS notes (in Table 7.9s footnote) that the dataset was not modified where localised inaccuracies occur. This gives the reader the impression that inaccuracies exist and may be significant, without explicitly stating that this is the case.</p>	<p>The Draft EIS does not meet the requirements of TOR 5.1 given the inconsistency between figures quotes for impacted properties. The Draft EIS should be amended to ensure:</p> <ul style="list-style-type: none"> Information provided in the Executive Summary is consistent with that provided in the main document, and appendices. The uncertainty regarding affected properties is removed and the proposed projects current proposed greenfield alignment is clearly identified as being primarily located in Class A and Class B Agricultural Land, which is primarily freehold land. Data should be made consistent throughout the Draft EIS and wording should accurately reflect what the data tells the reader. The Draft EIS should be amended appropriately to either consider the inaccuracies referred to in Table 7.9s footnote or provide information which clearly illustrates to the reader that the inaccuracies referred to are minimal rather than simply inferring that inaccuracies exist without providing firm data to back the statement up. Sections of the proposed project which cross freehold land which is Class A and B agricultural land should be realigned in consultation with landholder requirements. The proponent should consider adopting the widening of road corridors where appropriate to reduce the amount of freehold land which is Class A and B agricultural land in order to reduce adverse impacts to landowners as a result of the proposed current alignment. 	<p>Revisions and updates to the executive summary have been undertaken to ensure consistency between the content of the Executive Summary and the body of the EIS.</p> <p>Chapter 8: Land Use and Tenure, Section 8.4.2 and 8.5.1 include information on the number of lots and easements (Permanent and Temporary). Appendix F Impacted Properties is consistent. 495 properties are permanently impacted along with 33 easements. When combined with temporarily impacted properties, the numbers increase by 48 lots to 543 and easements increase by 9 to 42.</p> <p>With respect to the Agricultural land, Table 8-10 and 8-11 of Chapter 8: Land Use and Tenure are relevant as they demonstrate the area and percentage of the Project footprint (permanently and temporarily impacted) for both the mapped Land Class A and B for the total area as well as for the areas that are currently available for cropping (which is land outside of the existing road and rail reserves in which the Project is located).</p>	<p>Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.1 Table 8-10 Table 8-11</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0036	Local Government	Traffic and Transport	Operational traffic	<p>Impacts to Property Access TRC consultation required: The Draft EIS states the proposed project will:</p> <ul style="list-style-type: none"> Result in the severance of driveways and private access to individual properties; Design each property solution on a case-by-case basis; and Include typical treatments such as diversions to an adjacent public road. <p>The Draft EIS does not propose to consult with TRC to ensure that proposed property solutions involving TRC managed public roads are also acceptable to Council. As a result, the document has not adequately addressed the impacts of the proposed project on the wider transport network or ensured that mitigation strategies will be prepared in close consultation with relevant local governments (as required by TOR 11.109 and 11.116).</p>	<p>The Draft EIS requires update to commit to consulting with TRC in relation to any proposed change to private access from public roads.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to consult with TRC and local/impacted landowners regarding changing private access to public roads and private properties and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities.</p>	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road Use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. <p>Severance and fragmentation of rural properties are considered in Chapter 8: Land Use and Tenure, and the results are summarised in Section 8.5.1 and 8.5.4 of the EIS. It is identified that property severance could affect the configuration of a property, affecting efficiency, productivity and viability, for example as a result of changes in access arrangement for the movement of farm machinery or stock to different areas of a property. Other identified property impacts include impeded access and changes to internal roads.</p> <p>ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progress. In accordance with mitigation measures in Section 8.6.2 and 8.6.3 of Chapter 8: Land Use and Tenure, the design and construction planning would continue to be refined to minimise potential impacts on land uses and properties as far as reasonably practicable. Consultation with landowners will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties. Where the proposal affects internal property access arrangements, input has been and will continue to be sought from relevant landowners prior to finalising the detailed design. Where changes to internal property access arrangements are required, ARTC will consult with relevant property owners/occupants regarding alternative access arrangements, where feasible alternatives are available, ARTC will identify feasible and reasonable measures to minimise impacts on existing operational arrangements/properties.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.5.4</p> <p>Section 8.6.2</p> <p>Section 8.6.3</p> <p>Appendix AA: Traffic Impact Assessment</p> <p>Section 6.2</p>
218	218.0037		Traffic and Transport	Construction traffic	<p>Land Tenure temporary footprint may not be sufficient: The Draft EIS states that the temporary footprint will provide for the roadworks associated with the construction of new roads.</p> <p>Elsewhere, the Draft EIS states that during construction, land will be required temporarily and purchasing or leasing arrangements will be investigated in consultation with relevant landowners.</p> <p>The Design drawings do not adequately identify whether there is sufficient temporary footprint available at relevant local road/rail interfaces to accommodate side-tracks for the proposed permanent construction works.</p> <p>As a result, the Draft EIS has not adequately identified all tenure required for the proposed project to proceed and therefore does not meet the requirements of TOR 11.74.</p>	<p>TRC does not support the full closure of any road to traffic during construction. The Draft EIS should be revised to provide sufficient temporary footprint at all road/rail interfaces to accommodate side-tracks during construction and to commit to no road closures during construction activities.</p>	<p>Whilst a significant amount of work has been completed to assess the potential road impacts as outlined in the Traffic Impact Assessment in Appendix AA: Traffic Impact Assessment of the revised draft EIS, the Principal Contractor is not on board the Project until detailed design and as such the construction routes are not finalised by the Contractor. As a result, a complete RUMP cannot be delivered until that time. This is normal process for construction projects, and is in line with Workplace Health and Safety legislation requirements. This is because many assumptions during the previous stages that will impact on road use management strategies, are not confirmed until detailed design progresses, or construction scheduling allows full visibility of the impact of construction vehicles.</p> <p>Requirements for roads upgrades to be finalised during Detailed Design stage as well as updating during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification *MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p> <p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road Use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2.2</p> <p>Section 5.2.2</p> <p>Section 6.2</p>
218	218.0038	Local Government	Social Impact Assessment	Construction traffic	<p>School Bus Routes – impacts not adequately addressed: The Draft EIS acknowledges that stakeholders are concerned about the potential for Project traffic to use school bus routes, which will in turn lead to safety issues for school children and the public in general.</p> <p>The Draft EIS identifies that across the proposed project area, 184 existing school bus services will share elements of the proposed construction routes including 11 new or upgraded intersections, and notes impacts of longer journey times, with essential movements proposed during pick-up and set-down times.</p> <p>The Draft EIS does not quantify that these longer journey time impacts, and the use of the term 'essential movements' could be interpreted as being all construction traffic associated with the proposed project.</p> <p>Further, the Draft EIS does not adequately describe how the proposed road-rail interface works will be constructed, including what detours, road closures or other impacts may arise during construction, simply noting in most cases that vehicular movements are expected to be 'unimpeded once construction works are operational'.</p> <p>The Draft EIS does not adequately describe how the impacts to school bus routes will be mitigated during the construction phase of the proposed project, nor does it provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by proposed project transport at the local level or developed mitigation strategies in close consultation with relevant local governments (TRC), and as such has not meet the requirements of TOR 11.113 and 11.116.</p>	<p>TRC's position is that there should be no movement of construction traffic (other than light vehicles) on school bus routes during construction of the project, and to provide mitigation measures to address these impacts to TRC's and TransLink's satisfaction.</p> <p>The Draft EIS should be amended to provide detailed information as to how the proposed project will impact school bus routes during construction of the project, and to provide mitigation measures to address these impacts to TRC's and TransLink's satisfaction.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to consult with TRC and TransLink regarding the potential and adverse impacts of construction traffic on school routes and to reach written agreement with TRC and TransLink in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>The disruption to bus routes located near the alignment are likely to be during construction of the Project.</p> <p>Construction traffic on known school bus routes, or routes with significant cyclist or pedestrian activity will be restricted during pick-up and set-down times on school days, or peak active transport periods.</p> <p>Further measures may include measures such as signage or protection on construction routes with a high proportion of cyclists or pedestrians, employing contractor driver briefings on safe driving to avoid active transport users and community notifications.</p> <p>Once a construction contractor is appointed, construction routes and vehicle numbers are finalised, specific measures to mitigate impacts to active transport users will be required to be developed for the construction routes on a case-by-case basis. This is to minimise construction vehicles through areas of higher pedestrian or cyclists' activity, such as schools or town centres, in peak periods will reduce the impact and potential safety issues (Section 5.2.2, Appendix AA: Traffic Impact Assessment).</p> <p>In addition to identifying impact mitigation measures in Appendix AA: Traffic Impact Assessment for all applications, major developments must generally submit a road-use management plan (RUMP). The purpose of the RUMP is to detail how road impacts of Project traffic, particularly from HV use, will be avoided or managed during the life of the Project using road-use management strategies that are verifiable. The RUMP is detailed further in Section 5.12.3 of Appendix AA: Traffic Impact Assessment. The Contractor will use DTMR Guideline for Preparing a Road Use Management Plan and the Traffic and Road Use Management Manual for guidance and as a source of reference for preparing a RUMP. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing, to ensure management measures to minimise the potential impacts on the transport network are implemented and mechanisms are in place to manage these impacts into the future.</p> <p>Given that the school bus routes summarised in Table 5.114 (of Section 5.10.4) do not tend to have designated bus stops, apart from the termini, prior to the Construction Works stage of the Project, suitable mitigation measures for all of the affected services, including the location of bus stops, should be identified in consultation with bus operators, local councils, impacted schools, Department of Education and the local community and be documented in the TMP to ensure school bus safety and understand any impacts to journey times, if any.</p> <p>It is expected that school bus services would not be substantially impacted from an operational and service reliability perspective as a result of the Project generated traffic during the Project construction. However, the construction contractor should avoid school bus services and school zones, with school zones and routes considered in the preparation of the CEMP, as discussed in Section 5.12.3 of Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2.2</p> <p>Section 5.12.3</p> <p>Section 5.10.4</p> <p>Table 5.114</p>
218	218.0039		Surface Water	Increase in flows	<p>Hydraulic Design Criteria, Flood Impact Objectives, Assessment Methodology and Mitigation Measures no actionable nuisance to be created by the Project: The Draft EIS addresses only technical engineering design criteria and fails to address the common law legal principle of no actionable nuisance in relation to any changes in drainage flows and/or flow paths.</p> <p>The reference design indicates that the proposed project will intercept, divert and concentrate upstream overland flows to higher locations in each catchment and may even potentially divert flow between catchments. These changes have the potential to affect TRC road and drainage infrastructure and private property owners adversely.</p> <p>The Draft EIS contains brief commentary about point-source discharges of water, embankment drains, catch drains and discharges of water from the proposed rail corridor, and states these will pass into a local water system with negligible impacts. Appendix Q states that calculations for minor catchments have been undertaken however these calculations are not provided in the Draft EIS. Further, no mitigation measures have been proposed to address these concerns.</p> <p>As a result, the Draft EIS has not adequately addressed the proposed project's direct and indirect impacts at the local scale, and therefore does not meet the requirements of (TOR 11.53 and 11.54).</p>	<p>The Draft EIS should be amended to meet the requirements of TOR 11.53 and 11.54(c) and identify and mitigate all direct and indirect impacts of the proposed project on local drainage flows and/or flow paths, and to provide mitigation measures which will address these impacts to TRC's satisfaction and to ensure that there is no actionable nuisance affecting either TRC road and drainage infrastructure or private property owners.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent must implement all recommendations of the Independent International Panel of Experts for Flood Studies of Inland rail in Queensland review and be required to consult with TRC regarding the mitigation of all direct and indirect impacts from the proposed project on local drainage flows and/or flow paths and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). Flood flow distribution has been assessed and is discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.6.3</p> <p>Section 14.8.1</p> <p>Section 14.11</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 2</p> <p>Section 4.2</p> <p>Section 18</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
218	218.0039	Local Government	Surface Water	Increase in flows	<p>Hydraulic Design Criteria, Flood Impact Objectives, Assessment Methodology and Mitigation Measures no actionable nuisance to be created by the Project: The Draft EIS addresses only technical engineering design criteria and fails to address the common law legal principle of no actionable nuisance in relation to any changes in drainage flows and/or flow paths.</p> <p>The reference design indicates that the proposed project will intercept, divert and concentrate upstream overland flows to higher locations in each catchment and may even potentially divert flow between catchments. These changes have the potential to affect TRC road and drainage infrastructure and private property owners adversely.</p> <p>The Draft EIS contains brief commentary about point-source discharges of water, embankment drains, catch drains and discharges of water from the proposed rail corridor, and states these will pass into a local water system with negligible impacts. Appendix Q states that calculations for minor catchments have been undertaken however these calculations are not provided in the Draft EIS. Further, no mitigation measures have been proposed to address these concerns.</p> <p>As a result, the Draft EIS has not adequately addressed the proposed projects direct and indirect impacts at the local scale, and therefore does not meet the requirements of (TOR 11.53 and 11.54).</p>	<p>The Draft EIS should be amended to meet the requirements of TOR 11.53 and 11.54(c) and identify and mitigate all direct and indirect impacts of the proposed project on local drainage flows and/or flow paths, and to provide mitigation measures which will address these impacts to TRC's satisfaction and to ensure that there is no actionable nuisance affecting either TRC road and drainage infrastructure or private property owners.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent must implement all recommendations of the Independent International Panel of Experts for Flood Studies of Inland rail in Queensland review and be required to consult with TRC regarding the mitigation of all direct and indirect impacts from the proposed project on local drainage flows and/or flow paths and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). Flood flow distribution has been assessed and is discussed in Section 14.8.1 of the revised draft EIS, Chapter 14: Flooding and Geomorphology.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.6.3</p> <p>Section 14.8.1</p> <p>Section 14.11</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 4.2</p> <p>Section 5-17</p> <p>Section 18.2</p> <p>Appendix T2: Flooding and Hydrology Technical Report - Volume 2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0040	Local Government	Surface Water	Overland flow/diversion	<p>Watercourses and waterways, and mitigation measures impacts on local roads: The Draft EIS states that the reference design includes 66 minor waterways, however flood modelling has not been completed at many of these minor waterways to inform the document. According to the reference design, a number of these waterways involve rail-over-road diversions of local roads.</p> <p>Further to this, a detailed hydrology assessment to develop enough hydrological models for the project is required to allow TRC to appropriately assess the impacts of diversions or interceptions of overland flow or the placement of diverted roads adjacent to creeks under rail-over-road bridges.</p> <p>Such impacts could adversely impact private property owners and the safety and flood resilience of TRCs road network (through changes to the depth, velocity and increased duration of inundation). Given this, the Draft EIS does not adequately address the projects direct and indirect impacts at the local scale and therefore does not meet the requirements of TOR 11.53 and 11.54(c).</p>	<p>The proponent should develop hydrologic and hydraulic models for all locations where overland or other flows are intercepted and diverted by the proposed project, particularly where the project proposes to place diverted roads adjacent to creeks or flow paths under rail-over-road bridges, and to provide mitigation measures to address these impacts to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition: <ul style="list-style-type: none"> The proponent must implement all recommendations of the Independent International Panel of Experts for Flood Studies of Inland rail in Queensland review and be required to consult with TRC regarding diverted roads adjacent to creeks or flow paths under rail-over-road bridges to develop appropriate mitigation measures and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. </p>	<p>Hydrologic and hydraulic modelling has been carried out for local catchments as well as regional (floodplain) catchments. Local and floodplain catchments have been reported in detail in Appendices T1 and T2: Hydrology and Flooding Technical - Volume 1 and 2 Report of the revised draft EIS. The methodology that was followed to assess local catchments, and to place and size cross drainage provisions (bridges and culverts) for local catchment drainage paths is described in Section 18.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the draft EIS.</p> <p>Flood Impact Objectives (FIO) have been revised, and agreed, with the Expert Flood Panel with the FIO targets located in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. An impact assessment against these FIOs has been completed with a summary of this assessment provided within the 'Flood impact objectives outcomes' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5-17 Section 18.2</p>
218	218.0041	Local Government	Traffic and Transport	Road safety	<p>Road Safety is not adequately addressed: The Draft EIS states that as a minimum, road safety audits will be undertaken for all public level crossings included in the detailed design and that consultation will provide stakeholders with details of the relevant construction management plans and Traffic Management Sub-plan.</p> <p>The Draft EIS contains no commitment to undertake road safety audits on all local roads (including detour roads) impacted by the proposed project, nor any commitment (other than consideration in detailed design and construction methodology) to address the safety concerns and issues identified by these audits.</p> <p>The Draft EIS has therefore not provided enough information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local level or how identified impacts will be mitigated (as required by TOR 11.113 and 11.116).</p> <p>ARTC Response: As stated within the revised TIA, a safety assessment of the detail design and proposed construction traffic routes will be required, in accordance with the GTIA, once detail design is completed. The safety assessment will determine the locations where road safety audits are required.</p> <p>As the dEIS and revised TIA have outlined the proposed level crossings for the Project, these have been noted as requiring a road safety audit during the detailed design phase. As a minimum, road safety audits will be undertaken for all public level crossings included in the detail design.</p> <p>Regarding Proposed Solution: The revised EIS states within Section 9.2.2 that as a minimum, road safety audits will be undertaken for all public level crossings included in the detail design. Furthermore, all road safety audits will be undertaken by an accredited road safety auditor, in accordance with the Austroads Guide to Road Safety Part 6A: Implementing Road Safety Audits (Austroads, 2019c).</p> <p>Further details will be added to Section 9.2 detailing that consultation between ARTC, the construction contractor, local councils and TMR will be required regarding the provision of road impact assessments and road safety audits for all impacted LGR and SCR.</p> <p>ARTC Response: As stated within the revised TIA, a safety assessment of the detail design and proposed construction traffic routes will be required, in accordance with the GTIA, once detail design is completed. The safety assessment will determine the locations where road safety audits are required.</p> <p>As the dEIS and revised TIA have outlined the proposed level crossings for the Project, these have been noted as requiring a road safety audit during the detailed design phase. As a minimum, road safety audits will be undertaken for all public level crossings included in the detail design.</p> <p>Regarding Proposed Solution: The revised EIS states within Section 9.2.2 that as a minimum, road safety audits will be undertaken for all public level crossings included in the detail design. Furthermore, all road safety audits will be undertaken by an accredited road safety auditor, in accordance with the Austroads Guide to Road Safety Part 6A: Implementing Road Safety Audits (Austroads, 2019c).</p> <p>Further details will be added to Section 9.2 detailing that consultation between ARTC, the construction contractor, local councils and TMR will be required regarding the provision of road impact assessments and road safety audits for all impacted LGR and SCR.</p>	<p>nil.</p>	<p>The road safety assessment presented within the TIA has been undertaken as per the framework laid out in GTIA Part C Section 9. This framework relies on the principle that a road's safety is not significantly worsened as a result of the Project and that any pre-existing or Project -introduced unacceptable safety risk is addressed.</p> <p>The GTIA acknowledges that safety is not readily quantifiable and may require scoring based on expert opinion on the changes to likelihood and/or consequence of a risk being realised. This road safety impact assessment has the following aims in accordance with the Project's TIA – Road Safety Methodology Technical Memo which was agreed with DTMR in November 2022 (Appendix BS).</p> <p>A safety risk assessment based on existing crash history has been undertaken along the Project construction traffic routes and road-rail interface locations for the following scenarios: <ul style="list-style-type: none"> 'Without' Project 'With' Project 'With' Project and with mitigation measures (required only if the score in the Project situation is higher than in the without Project situation, or if the without Project score is in the 'high' category). </p> <p>Appendix AA: Traffic Impact Assessment Section 5.2.2 provides whole of Project mitigation measures suggested for the Detailed Design and Construction Works stages, which include items such as construction traffic management plans, road use management plans, and non-infrastructure based mitigation measures.</p> <p>Appendix AA: Traffic Impact Assessment Section 5.2 provides a summary of the intersections, road links and road-rail interfaces requiring mitigation as per the GTIA Part C Section 9 framework. The detailed road safety assessments are contained in Appendix AN, AO AP and AQ for intersections, road links, road-rail interfaces (construction), and road-rail interfaces (operation) respectively.</p> <p>Appendix AA: Traffic Impact Assessment Section 5.9 details level crossing impact assessment and mitigation - operation, which includes assessment of vehicle wait times. Table 5.112 summarises the road-rail interface mitigation measures.</p> <p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Any roads or existing structures located along construction routes that may warrant upgrades to cater for the Project's construction vehicles will be required to be assessed in consultation with the asset owner, the road controlling authority, local councils, ARTC and the construction contractor to determine if the upgrade is warranted as a part of the Project. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment.</p> <p>Requirements for roads upgrades to be finalised during Detailed Design stage as well as updating during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification 'MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.7 Section 5.9 Table 5.112 Appendix AN Appendix AO Appendix AP Appendix AQ</p>
218	218.0042	Local Government	Traffic and Transport	Mitigation measures	<p>Traffic Management not adequately addressed: The Draft EIS proposes that construction and construction traffic can be managed through a Traffic Management Sub-plan, to be prepared prior to the commencement of construction as a joint effort once preferred routes are confirmed, the purpose of which is to document only the scope of the construction transport task and specify management measures and controls to minimise impacts.</p> <p>The Draft EIS does not recognise that many of the proposed road-rail interfaces may only practicably be constructed under full closure of the road to all traffic, nor are there any mitigation measures described that adequately address the matters of side-tracks and/or detours with potentially multiple adjacent road-rail interfaces affected by construction at the same time, on lower order local roads.</p> <p>As a result, the Draft EIS has not provided enough information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local level or how identified impacts will be mitigated in close consultation with the relevant local governments and as such does not meet the requirements of TOR 11.113 and 11.116.</p>	<p>In addition to confirming preferred routes for construction traffic, the Draft EIS should be updated to identify all proposed side-tracks and/or detours required for the proposed construction of all local road-rail interfaces, and to provide mitigation measures to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition: <ul style="list-style-type: none"> The proponent is required to consult with TRC regarding proposed construction traffic routes (including all proposed side-tracks and/or detours) and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. </p>	<p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Any roads or existing structures located along construction routes that may warrant upgrades to cater for the Project's construction vehicles will be required to be assessed in consultation with the asset owner, the road controlling authority, local councils, ARTC and the construction contractor to determine if the upgrade is warranted as a part of the Project. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment.</p> <p>Requirements for roads upgrades to be finalised during Detailed Design stage as well as updating during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification 'MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p> <p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include: <ul style="list-style-type: none"> ARTC will draft and finalise a Road Use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. </p>	<p>Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.7 Section 6.2</p>
218	218.0043		Approvals/ conditions/ recommendations	Operational traffic	<p>Traffic Management Plans and Traffic Control Plans approvals not adequately addressed: The Draft EIS identifies that the proponent will prepare a Road Use Management Plan (RUMP), Traffic Control Plans and Traffic Guidance Schemes for the proposed project activities.</p> <p>The Draft EIS does not however recognise that TRC has statutory powers as a road authority under the Local Government Act 2009 to approve Traffic Management Plans and Traffic Control Plans on local roads and it does not provide sufficient information to enable approval conditions to be developed in relation to later approvals under relevant legislation. As a result, the Draft EIS does not meet the requirements of TOR 7.1 and 7.2.</p>	<p>The Draft EIS requires amendment to recognise the requirements of the Local Government Act 2009 and TRCs statutory powers to issue approvals for Traffic Management Plans for all project works on all local roads.</p> <p>TRC requests that the OCG impose the following condition: <ul style="list-style-type: none"> The proponent is required to apply for and pay all fees and charges in relation to obtaining works on road permits at least one month prior to the commencement of any proposed construction activities on local roads. </p>	<p>The revised draft EIS addresses the traffic, transport and access impacts of the Project on the surrounding transport infrastructure in accordance with the Guidelines for Traffic Impact Assessment (GTIA) (see Appendix AA: Traffic Impact Assessment, Section 5.7). Mitigation measures have been proposed that recognises the role of DTMR in: <ul style="list-style-type: none"> The provision of road impact assessments and road safety audits The preparation of Transport Management Plans Approving traffic management arrangements for construction sites, laydown areas or non-resident workforce accommodation requiring with access with a State controlled roads The preparation of temporary road works, including diversion and signage to be undertaken in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads (DTMR 2019a) and the Traffic and Road Use Management Manual: Volume 7 Road Works (DTMR 2012) The preparation of the Road Use Management Plan (RUMP) in accordance with the GTIA </p> <p>The role of the DTMR through the provisions of the Local Government Act 2009, in particular Part 3, s.60 and the Transport Operations (Road Use Management) Act 1995, are noted.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.7</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0043	Local Government	Approvals/ conditions/ recommendations	Operational traffic	<p>Traffic Management Plans and Traffic Control Plans approvals not adequately addressed: The Draft EIS identifies that the proponent will prepare a Road Use Management Plan (RUMP), Traffic Control Plans and Traffic Guidance Schemes for the proposed project activities.</p> <p>The Draft EIS does not however recognise that TRC has statutory powers as a road authority under the Local Government Act 2009 to approve Traffic Management Plans and Traffic Control Plans on local roads and it does not provide sufficient information to enable approval conditions to be developed in relation to later approvals under relevant legislation. As a result, the Draft EIS does not meet the requirements of TOR 7.1 and 7.2.</p>	<p>The Draft EIS requires amendment to recognise the requirements of the Local Government Act 2009 and TRCs statutory powers to issue approvals for Traffic Management Plans for all project works on all local roads.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to apply for and pay all fees and charges in relation to obtaining works on road permits at least one month prior to the commencement of any proposed construction activities on local roads. 	<p>The Coordinator-General may impose stated conditions that must be incorporated into subsequent development approvals. They may also provide recommendations for other approvals required by the Project.</p>	N/A
218	218.0044		Traffic and Transport	Operational traffic	<p>Traffic Data Sources and Scope of Traffic Impact Analysis false assumptions and conclusion: In instances where existing traffic data was not available, the Draft EIS makes assumptions. Of the 65 Toowoomba Region local road sections listed in Appendix X Table 4.6, traffic counts have been assumed for 26 road sections which is 40% of the road sections assessed.</p> <p>In these 26 cases, the assumed traffic volumes are much greater than the likely traffic volumes (indicatively 400% to 2000% greater), leading to the percentage impact of construction traffic on these roads being correspondingly low. These incorrect traffic count assumptions have resulted in many roads which require assessment being dismissed.</p> <p>The Draft EIS therefore has failed to provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local and regional level and as such, does not meet the requirements of TOR 11.114.</p>	<p>The Draft EIS requires amendment to meet the requirements of TOR 11.114 and provide accurate traffic count data for all TRC local roads where traffic count assumptions have been made.</p> <p>For local roads incorrectly not considered in the Draft EIS, the proponent should commit to completing the necessary additional traffic impact assessments which will provide sufficient information to allow TRC to assess how local roads and local road intersections with TMR roads will be affected by the project transport.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to complete additional traffic impact assessments to allow TRC to appropriately assess impacts to local roads from proposed construction activities and provide to TRC for approval at least six months prior to the commencement of any construction activities. 	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to indicate performance thresholds for assessment of traffic impact were developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017). This includes the 5% threshold provided from the GTIA and other acceptable LOS values provided in the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a) and DTMR Guidelines for Assessment of Road Impacts of Development (2017).</p> <p>Section 2.4.1 of Appendix AA: Traffic Impact Assessment provides an overview of the traffic data collected and used for the purpose of determining intersection volumes (used for the turn warrants assessment) at SCR intersections and outlines the existing volumes for all intersections. As part of the traffic data collection task, traffic volumes have been collected along the Project construction routes over the recent years including:</p> <ul style="list-style-type: none"> SCR census-based traffic volumes Local Government databases Traffic signal data (from DTMR STREAMS software) Link-based traffic volumes tube counts conducted in: <ul style="list-style-type: none"> September 2019 September/October 2020 March 2021 March 2022. Intersection turning counts conducted in: <ul style="list-style-type: none"> March 2021, around Brookstead March 2022, for the wider network May 2022, for diversion locations. <p>In instances where traffic data was not available from road controlling authorities or traffic surveys conducted, conservative turning volume assumptions have been adopted using the available road link volumes. This methodology has been outlined in a technical memo to TMR which is provided in Appendix BP of Appendix AA: Traffic Impact Assessment. For the intersections where base traffic turning volumes were not available, the intersection assessment will be first undertaken by comparing two "Base Traffic Scenarios" and then the "worst case" scenario is considered for delay impacts.</p> <p>During detailed design, once the construction routes are finalised with a construction contractor, it is recommended that traffic counts be obtained for updating the traffic analysis where recent data (i.e. previous 5 years) is not available to accurately determine impacts of final Project alignment, construction program, methodology, routes and vehicle volumes.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 2.4.1</p> <p>Appendix BP</p>
218	218.0045	Local Government	Traffic and Transport	Construction traffic	<p>Traffic Impact Assessment impacts on local roads not adequately identified: The Draft EIS identifies 38 TRC local roads which will be expected to experience construction traffic that exceeds 5% of the background traffic.</p> <p>The Draft EIS goes on to conclude that based on the Level of Service (LOS) comparison, the proposed project would not generate the need to upgrade the road network for such a short duration of impact. The LOS methodology adopted is not appropriate to adequately identify impacts on lower order local roads that are not constructed to TMR standards.</p> <p>Most of the local roads which are proposed to be used for first-mile last-mile access for the delivery of materials and equipment to the proposed project's bridge sites and laydown areas, are of minimal pavement strength and construction standard and are not suitable for project traffic without significant upgrading.</p> <p>Further, the Draft EIS:</p> <ul style="list-style-type: none"> Identifies 26 locations within TRC where the addition of construction traffic warrants additional turning treatments in order to maintain safety, but then proposes that given the short duration of construction-related traffic, traffic management strategies may be introduced as an alternative measure. Considers the delivery of materials to the proposed project but does not provide any information regarding equipment used in the installation of materials such as large cranes and pile-driving rigs. <p>While the proponent considers the duration of construction to be short, the Draft EIS identifies construction durations on roads in the TRC region of generally between 3 and 6 years, which does not support the proposed use of traffic management strategies in lieu of upgrade.</p> <p>The Draft EIS has therefore failed to provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local level or to prepare mitigation strategies in close consultation with relevant local governments (as required by TOR 11.114 and 11.116).</p>	<p>"The Draft EIS requires updating to provide sufficient information for TRC to fully assess the impacts of the proposed project traffic on local roads and intersections of local roads with TMR roads, irrespective of the LOS comparison, and to provide appropriate mitigation measures to address these impacts to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to consult with TRC regarding proposed construction traffic routes (including all proposed side-tracks and/or detours), to propose appropriate mitigation measures and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to indicate performance thresholds for assessment of traffic impact were developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017). This includes the 5% threshold provided from the GTIA and other acceptable LOS values provided in the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a) and DTMR Guidelines for Assessment of Road Impacts of Development (2017).</p> <p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. <p>The agreed arrangements to deal with impacted pavements as a result of construction will be agreed between the Road Manager and ARTC.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 6.2</p>
218	218.0046	Local Government	Traffic and Transport	Construction traffic	<p>Construction Routes unconstructed roads: The Draft EIS states that construction traffic will use 61 roads within the TRC region however 9 of these roads (15%) are not-constructed roads.</p> <p>The Draft EIS has not proposed any mitigation measures in relation to these unconstructed roads and has therefore failed to provide sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local level or provide appropriate mitigation strategies in close consultation with relevant local governments. As a result, the Draft EIS does not meet the requirements of TOR 11.114 and 11.116.</p>	<p>"The Draft EIS requires amending to provide sufficient information to allow TRC to assess how construction traffic would use unconstructed roads, and to provide mitigation measures to address these impacts to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to reach written agreement with TRC in relation to the issue of construction traffic on unconstructed roads (including, but not limited to, committing to appropriate mitigation measures) at least six months prior to the commencement of any construction activities, 	<p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Requirements for roads upgrades to be finalised during Detailed Design stage as well as updating during the Construction Works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification "MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p> <p>Appendix AA, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. <p>The agreed arrangements to deal with impacted pavements as a result of construction will exist between the Road Manager and ARTC.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2.2</p> <p>Section 6.2</p>
218	218.0047	Local Government	Traffic and Transport	Mitigation measures	<p>Pavement Impacts local roads not adequately addressed: The Draft EIS describes preliminary desktop pavement impacts on all potentially affected State-controlled roads but provides no pavement impact assessment on TRCs local roads.</p> <p>Further, the Draft EIS proposes that condition assessments be undertaken on both sealed and unsealed local roads but does not propose any actual measures which would address impacts on local road pavements. Local roads are generally not constructed to a pavement standard that is sufficient to accommodate the proposed projects transport task.</p> <p>The Draft EIS has therefore not provided sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by project transport at the local level or prepared mitigation strategies in close consultation with relevant local governments (as required by TOR 11.113 and 11.116).</p>	<p>"The Draft EIS should be amended to meet the requirements of TOR 11.113 and 11.116 and commit to providing pavement impact assessments on all potentially affected TRC local roads, and to provide mitigation measures to address these impacts to TRCs satisfaction.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to ensure that they and all construction contractors consult with TRC regarding pavement impacts from construction activities (including, but not limited to, commitments to conduct pavement assessment surveys prior to the commencement of construction, an appropriate maintenance program during construction, and rehabilitation to original condition or better after construction activities have ceased) and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>Appendix AA: Traffic Impact Assessment, Section 5.6 discusses pavement impacts with Section 5.6.4 highlighting mitigation measures for pavement damages to local government roads.</p> <p>The pavement impact assessment was undertaken to identify the likely magnitude of pavement impacts on the road network due to the additional heavy vehicles movements generated by the Project during construction. Where the pavement loadings of the additional Project related traffic equals or exceeds 5 per cent of the background loadings, the pavement is considered to be significantly impacted.</p> <p>Further, ARTC has committed that the current condition of the pavements will be classified based on Section 4 of Austroads Guide to Pavement Technology, Part 5 (2019), whereby the degradation of the pavements will be based on international roughness index values or NAASRA roughness counts. The degradation of the pavements based on NAASRA roughness count will be calculated, enabling the impact of construction traffic and the works required to restore the pavement to the pre-construction condition to be quantified. Where the level of roughness measured prior to construction exceeds the maximum desirable level for the class of road, the road has already exceeded its design life. In these cases, the intervention required will be agreed on a case-by-case basis with the road controlling authority.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.6</p> <p>Section 5.6.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0048	Local Government	Hazard and Risk	Infrastructure crossings/ interaction	<p>Hazard and residual risk at level crossings: The revised draft EIS states that proposed risk management policies and procedures will consistently and effectively reduce most of the risks associated with the proposed project to low-to-medium levels.</p> <p>The safety risk assessment reported in the revised draft EIS how's that the risk rating of road-rail interfaces on all impacted TRC local roads is proposed to be increased from either nil or medium, to High as a consequence of the proposed project.</p> <p>TRC has not at this time, agreed in-principle or otherwise with any of the road-rail interfaces or any of the consolidations, diversions or closures of local roads proposed by the revised draft EIS.</p> <p>The revised draft EIS does not adequately assess the impacts of the proposed project on individual road/rail crossings and/or any cumulative impacts on the wider transport network and therefore cannot meet the requirements of TOR 11.109.</p> <p>Further, the draft EIS does not adequately address or mitigate impacts proposed to be created by new railway level crossings in close consultation with relevant local governments (as required by TOR 11.115 and 11.116).</p>	<p>The revised draft EIS should maximise the number of grade-separated road-rail interfaces and provide active level crossings as an absolute minimum at all proposed new at-grade road-rail interfaces for the proposed project.</p> <p>TRC requests 'Additional information requests from OCG' impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to continue to develop the design of local road-rail interfaces in close consultation with TRC and to reach written agreement with the Council in relation to all proposed new road-rail interfaces and consolidations, diversions or closures of local roads at least six months prior to the commencement of construction activities. 	<p>ARTC engagement with stakeholders has continued including with TRC since public consultation of the revised draft EIS regarding all matters that have potential to affect Council, its community and assets. The design solutions for rail-road interfaces within the Toowoomba local government area has been a consistent theme through these discussions. In response to these consultations, the reference design has been revised as follows:</p> <ul style="list-style-type: none"> Passive level crossings of TRC roads reduced from 12 in the reference design to 1 in the revised reference design. This one passive level crossing is of a stock route along an unformed road. Grade separated crossings that involve TRC roads have been increased from 7 in the reference design to 12 in the revised reference design. <p>A summary of changes to the reference design since the revised draft EIS is presented in Section 5.3.3 of Chapter 5: Project Description. The revised rail crossing assessment is presented in Section 20.5 of Chapter 20: Traffic, Transport and Access in the revised draft EIS.</p>	<p>Chapter 5: Project Description Section 5.3.3 Chapter 20: Traffic, Transport and Access Section 20.5</p>
218	218.0049	Local Government	Traffic and Transport	Mitigation measures	<p>Cycle routes, high pedestrian activity areas and schools impacts not adequately identified or addressed: The Draft EIS identifies there are 10 cycle routes, towns (including Toowoomba, Pittsworth, Millmerran) that have volumes of pedestrian activity and two primary schools (Brookstead and Southbrook) in TRC that have the potential to be adversely impacted by construction traffic.</p> <p>While the Draft EIS does note one mitigation measure in relation to the schools, the Draft EIS concludes that most of these cycle and pedestrian routes currently facilitate a high proportion of heavy vehicle movements, and the addition of construction traffic is unlikely to result in a significant increase in risk.</p> <p>The Draft EIS has not adequately assessed active transport impacts, nor provided sufficient information as to how existing transport infrastructure will be affected by project transport at the local level, neither has it included mitigation strategies in close consultation with relevant local governments (as required by TOR 11.112, 11.113 and 11.116).</p>	<p>nil.</p>	<p>In developing the Construction Traffic Management Plan, it will be required to take into consideration areas of significant pedestrian and cyclist activity. When construction activities are within these areas, where there is potential for higher pedestrian volumes, specific pedestrian management measures should be put in place. These will be subject to site specific planning and reflect the nature of the works underway and the impacts on the existing pedestrian and cycle network.</p> <p>Prior to construction traffic utilising these routes, consultation and agreement between ARTC, the construction contractor and the local council will be required, including agreement upon appropriate mitigation measures to ensure the safety of pedestrians, cyclists and schools impacted by the construction related traffic.</p> <p>Appendix AA: Traffic Impact Assessment Section 4.2 has identified roads within the PCNP, and the town centres, that are proposed for use by construction vehicles, and indicated that as these areas have increased numbers of active transport users, further mitigation measures may be required to be developed within the CTMP once a construction contractor is appointed.</p> <p>Appendix AA: Traffic Impact Assessment Section 6.1 includes further detail on proposed mitigation measures that may be implemented by the construction contractor on roads with increased pedestrian activity, near schools or significant cyclist activity. These measures may include things such as appropriate signage or protection from construction vehicles for active transport users.</p>	<p>Appendix AA: Traffic Impact Assessment Section 4.2 Section 6.1</p>
218	218.0050	Local Government	Traffic and Transport	Operational traffic	<p>Operational condition of road networks road safety: The Draft EIS states that rail operational traffic volumes are likely to be negligible, with no envisaged impact to the operational conditions of the surrounding road networks. This statement is based on a numerical LOS parameter which does not reflect the major change in the road-rail safety environment that the proposed project represents.</p> <p>The Draft EIS identifies that each level crossing will disrupt traffic operations from 14 to 25 times per day with initial wait times of over 3 minutes (for up to 1.8 km trains). Compared to the current seasonal (only) and low-speed rail movements, the proposed project represents a substantial increase in the disruptive impacts of rail movements upon traffic operations on local roads. It also increases safety concerns arising from the proposed frequency of level crossing operations combined with high speed freight train operations.</p> <p>The Draft EIS has not adequately assessed the impacts of the proposed project on individual road/rail crossings as defined in TOR 11.109.</p>	<p>The Draft EIS should be updated to meet the requirements of TOR 11.109 and to recognise the significant change in the nature of and safety of road-rail interactions arising from the proposed project in terms of local road operations, and to propose mitigation measures which address this matter to TRC's satisfaction.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to consult with TRC regarding the proposed and significant change in the nature and safety of road/rail interactions as a result of the proposed project and in relation to local road operations, and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities. 	<p>Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to indicate performance thresholds for assessment of traffic impact were developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017). This includes the 5% threshold provided from the GTIA and other acceptable LOS values provided in the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a) and DTMR Guidelines for Assessment of Road Impacts of Development (2017).</p> <p>During the Operations stage of the Project, it is anticipated that occasional access to and from the corridor will be required to conduct routine inspection and maintenance works. The existing road network will be used by maintenance crews to travel to the rail corridor. Once in the rail corridor, the RMAR incorporated into the design of the Project will be used in preference to the existing road network for Project maintenance activities. These activities are likely to be infrequent and the related traffic volumes are likely to be minimal with no envisaged impact to operational conditions of the surrounding road network. These traffic volumes are envisaged not to exceed 5 per cent of base conditions. Therefore, a detailed analysis was not considered necessary as part of Appendix AA: Traffic Impact Assessment.</p> <p>Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include:</p> <ul style="list-style-type: none"> ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing intersections and road links are not worsened. ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. 	<p>Appendix AA: Traffic Impact Assessment Section 6.2</p>
218	218.0051		Traffic and Transport	Cumulative impacts	<p>Cumulative impacts within the wider road network not quantified: The Draft EIS states that there is a potential for this and other concurrent projects (including the proposed Gowrie to Helidon Inland Rail project) to result in cumulative impacts to accessibility within the wider road network.</p> <p>The Draft EIS further states that both Inland Rail projects are expected to be reliant on use of roads north of the Warrego Highway for a large portion of the construction period but provides no information as to the magnitude or intensity of these proposed impacts.</p> <p>Table 7.41 addresses cumulative impacts on accessibility to the wider road network, but not within the wider road network.</p> <p>The methodology proposed by the Draft EIS to address this issue is to facilitate communication between the principal contractors of the adjoining Inland Rail packages in order to ensure that construction methodologies and scheduling are compatible and do not exacerbate the potential impacts of a single project.</p> <p>While the Draft EIS also proposes to consult with TRC during the construction planning and construction phase to identify newly occurring issues/risks to the road network by project traffic, the document provides no clarity as to what the proposed impacts on accessibility within the wider road network would be or provide a surety as to how these impacts would be managed to TRC's satisfaction.</p> <p>As a result, the Draft EIS has not adequately addressed the impacts of the proposed project on the wider transport network or prepared adequate mitigation measures in close consultation with relevant local governments, as required by TOR 11.109 and 11.116.</p>	<p>The Draft EIS should be updated to meet the requirements of TOR 11.109 and TOR 11.116 including an assessment of the cumulative impacts of this and other concurrent projects (including the proposed Gowrie to Helidon Inland Rail project) on accessibility within the wider road network and to provide appropriate mitigation measures to effectively address these impacts.</p>	<p>Appendix AA: Traffic Impact Assessment has updated to address cumulative impacts of the Project (with concurrent projects including Gowrie to Helidon and North Star to Border project) on the wider network in Section 3.3.</p> <p>Appendix AA: Traffic Impact Assessment Section 3.3 details, to support the cumulative impact assessment for the revised draft EIS, anticipated timing of Construction for all Queensland and adjacent Inland Rail Projects is summarised in Table 3.7.</p> <p>Appendix AA: Traffic Impact Assessment Section 5.11 'Cumulative impact assessment and mitigations' addresses cumulative impacts of the Project with concurrent projects including the North Star to Border, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru, Kagaru to Acacia Ridge/Bromelton projects. Detailed quantitative cumulative impact assessment and mitigations is discussed in Section 5.11.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.3 Section 5.11 Table 3.7</p>
218	218.0052	Local Government	Project scope		<p>Proposed project footprint: TOR 5.3 states the detail at which the EIS deals with matters relevant to the project should be proportional to the scale of the impacts on environmental values</p> <p>Chapter 1, Table 1.1 states that the rail corridor would extend out to a maximum of 230 m. Wider sections of corridor are required to accommodate earthworks, drainage structures, rail infrastructure, access tracks and fencing. It is unclear to the reader whether this is 230 m to one side, or 230 m incorporating the proposed rail alignment.</p> <p>Chapter 7, Section 7.4.1 does not provide or discuss the maximum construction or operation footprint for the proposed project.</p> <p>The lack of maximum construction and operation footprint sizes raises concerns regarding technical study areas. Specifically, whether or not the proposed project footprint (including temporary and permanent footprint areas) has been adequately addressed by all the various technical studies (i.e., have all studies assessed a consistent and accurate project footprint?).</p>	<p>The Draft EIS requires amendment to meet the requirements of TOR 5.3 as it does not provide maximum construction or operation footprint sizes.</p> <p>It is recommended that all technical studies be reviewed to ensure that the proposed project footprint (including temporary and permanent footprint areas) has been accurately assessed.</p> <p>The Draft EIS should state whether the 230 m is total width or 230 m to either side of the corridor and provide clear information relating directly to where these maximums occur on the proposed alignment.</p> <p>The maximum width needs to be considered when calculating maximum footprints for construction and operation. These figures need to be included throughout the Draft EIS, and particularly in Chapter 7, Section 7.4.1.</p>	<p>The starting point for the EIS investigations and the definition of the permanent and temporary Project footprints was the two-kilometre-wide study area as determined by the Australian Government and as referenced in Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS. This study area was an outcome of the Corridor Options Report for Border to Gowrie that was completed in 2017.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation for each subject matter and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>This is described in Chapter 8: Land Use and Tenure, Section 8.3 and is depicted on Figure 8.1a-w.</p>	<p>Chapter 2: Project Rationale Section 2.8 Chapter 8: Land Use and Tenure Section 8.3 Figure 8.1a-w</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0053	Local Government	Flora and Fauna	Infrastructure crossings/inter-ction	<p>Crossing loops in environmentally sensitive areas: Section 1.2.3 notes there will be five crossing loops constructed at a minimum length of 2200 m and turnouts constructed to connect crossing loops and existing Lines/sidings. Figures 1.3a to 1.3k do not indicate where these crossing loops and turnouts will be located.</p> <p>Figures 1.3a to 1.3k do include a red shaded marking labelled 'permanent disturbance footprint' however many of the wider areas of the permanent disturbance footprint are located within environmentally sensitive areas. For example:</p> <ul style="list-style-type: none"> ▶ Ch 45 to 53; ▶ Ch 55 to 66; ▶ Ch 73 to 77; ▶ Ch 84 to 96; ▶ Ch 155 to 118; ▶ Ch 164 to 169; ▶ Ch 170 to 176; and ▶ Ch 203 to 207. 	<p>Figures 1.3a to 1.3k of the Draft EIS require amendment to include the locations of crossing loops, sidings and turnouts. Further, the Draft EIS requires amendment to justify why proposed crossing loops, sidings and turnouts have to be located in areas which are environmentally sensitive areas.</p> <p>The Draft EIS should demonstrate how impacts to environmentally sensitive areas has been avoided and minimised as areas of sensitive environmental values should have a minimum footprint of disturbance as a priority. The Draft EIS should justify why the increased widths at the changes noted are not minimised to achieve no significant residual impact through environmentally sensitive areas and should consider amending the proposed locations of these areas outside environmentally sensitive areas.</p>	<p>The Project alignment has changed since submission of the draft EIS.</p> <p>The Project includes five crossing loops which will be constructed as Sections of track roughly parallel to the main track (Section 5.4.3, Chapter 5: Project Description). The selection of crossing loop locations was informed by operational modelling for the Inland Rail Program and has taken into consideration proximity to sensitive receptors, interferences with existing infrastructure and flexibility for future extension. The locations of the crossing loops are:</p> <ul style="list-style-type: none"> ▶ Loop 1—Yelarbon ▶ Loop 2—Inglewood ▶ Loop 3—Kooroongarra ▶ Loop 4—Yandilla ▶ Loop 5—Broxburn <p>Chapter 11: Flora and Fauna, Section 11.6 of the revised draft EIS outlines the proposed mitigation measures across Detailed Design, Pre-Construction Activities and Early Works stage, Construction Works and Operations stages. Section 11.6 provides comprehensive details for mitigation and management measures according to the aspect of the Project including biodiversity, aquatic fauna, water quality, fauna fencing and movement.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.4.3</p> <p>Chapter 11: Flora and Fauna</p> <p>Section 11.6</p>
218	218.0054		Hazard and Risk	Mitigation measures	<p>Proponent environmental record: Section 1.5 notes that the proponent has incurred penalties for the discharge of sediment-laden water and sediment and erosion issues in NSW.</p>	<p>In light of the proponents pre-existing environmental penalties, it is considered that the revised draft EIS should robustly commit to communicating clearly how the proponent intends to ensure such events do not occur again, given that both the unauthorised release of sediment laden water, and events relating to the creation of sediment erosion issues may be considered to be directly related to TRC and community concerns regarding the Condamine River Floodplain.</p>	<p>A Concept Erosion and Sediment Control Plan (ESCP) will be developed as a component of the Construction Environmental Management Plan and will guide development of area-specific ESCPs and include detailed erosion hazard assessments and erosion and sediment control structure designs. Each of these are regularly updated and maintained during construction. The erosion and sediment control measures will be developed by a certified practitioner in erosion and sediment control, in accordance with the Best Practice Erosion and Sediment Control (IECA, 2008) and with reference to Soil Conservation Guidelines for Queensland (DSITI, 2015) and will be implemented during construction of the Project.</p> <p>A draft Soil Management Plan is provided in Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Part B (Section 3). Commitments to developing and implementing ESCPs are provided in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p> <p>Section 3</p>
218	218.0055	Local Government	Project scope		<p>Proponents environmental record: Section 1.5 notes the proponent has previously entered into a Voluntary Enforceable Undertaking with the Department of Sustainability, Environment, Water, Population and Communities (now the Department of Agriculture, Water and the Environment (DAWE)) under the EPBC Act in 2011.</p>	<p>It is considered that given TRC and community concerns regarding all catchments and in particular the Condamine River Floodplain, the Draft EIS should include detail regarding this agreement in order to provide the reader with confidence in the proponent and the delivery of the proposed project.</p>	<p>Once ARTC had met the requirements of the Voluntary Enforceable Undertaking (VEU), including implementation of 48 months of the weed management plan, ARTC provided DSEWPac (now DCCEEW) formal advice which confirmed completion of the requirements of the VEU on 12 January 2015.</p> <p>To enable the effective management of environmental compliance across the Inland Rail Program, ARTC has implemented an EMIS, SAI360. SAI360 is utilised as a management tool to monitor, review and manage environmental requirements and obligations. This system has been configured to support ARTC fulfil its environmental management requirements associated with the Projects. The Contractor will be required to provide environmental data/information to enable the population of SAI360 platform as part of their obligations in the contract. ARTC will remain as the proponent for ARTC approvals and will track and monitor compliance with these obligations utilising SAI360.</p> <p>All staff and contractors will be required to report any environmental incidents (including complaints) or breaches of any approval conditions in accordance with the requirements and timeframes set out in the CEMP, Operation EMP and any statutory requirements through SAI360. Project-specific Incident Management Procedures will also be developed to detail the process and resources required to respond to and manage incidents and emergencies during construction, commissioning and operation, including meeting regulatory reporting requirements.</p> <p>ARTC also manages an asset management system, 'Ellipse' during the Operations stage that records and tracks performance and compliance of assets against environment management obligations, and schedules maintenance and monitoring requirements, as prescribed by the relevant administrative authority, refer Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>
218	218.0056	Local Government	Land Resources		<p>Access to Millmerran landfill: The area circled on the Figure 1.3h (below) is Millmerran landfill. Access via Owens Scrub Road at Ch130 may be impacted.</p>	<p>The Draft EIS requires amendment to commit to ensuring traffic access to the landfill is maintained at all times for commercial waste contractors, domestic self-haul customers and construction traffic.</p>	<p>In response to community feedback, the revised reference design presented in the revised draft EIS includes a grade separated crossing (road over rail) on Owen Scrub Road (see Appendix E: Consultation Report, Section 4 and Section 5).</p> <p>Any temporary road closures proposed during the Construction Works stage will be reviewed and approved by the relevant road authority as part of the Contractors Traffic Management Plan. As Owen Scrub Road is a local Council road, the relevant Traffic Management Plan and any proposed closures will need to be reviewed and approved by Toowoomba Regional Council. It is expected that the Owen Scrub Road will generally remain open during daytime working hours. Side tracking of this road or short term, partial closures may be required at suitable times to enable construction works to be completed safely. Chapter 20: Traffic, Transport and Access, Section 20.5 and Section 20.6 discusses potential impacts to the local road network and proposed mitigation measures.</p> <p>ARTC will ensure traffic access to the Millmerran landfill is maintained for commercial waste contractors, domestic self-haul customers and construction traffic.</p>	<p>Chapter 20: Traffic, Transport and Access</p> <p>Section 20.5</p> <p>Section 20.6</p> <p>Appendix E: Consultation Report</p> <p>Section 4</p> <p>Section 5</p>
218	218.0057		Social Impact Assessment		<p>Local matters, local project: TOR 5.1 requires that 'the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the project are identified and assessed...'</p> <p>The Draft EIS does not meet the requirements of TOR 5.1 as, in its current form, most of Chapter 2, including key responses such as the potential community benefits, has a heavy focus on capital cities that are at such a distance to the proposed project that any discussion of the benefits these cities may garner from the proposed project should be brief at best. Specifically:</p> <ul style="list-style-type: none"> ▶ Section 2.2 of the Draft EIS refers to issues in capital cities, including 'competition from passenger trains, commute times and increased trucking movements on metropolitan roads.' The text goes on to further highlight population growth issues in capital cities and how the proposed project will benefit capital cities. ▶ Section 2.3 and 2.4 are much the same providing no reference to benefits for, or consideration of, local government areas (LGAs). ▶ Section 2.5 does include some discussion in relation to this, however the focus of the Chapter 2 remains on the benefits that capital cities will garner from the proposed project. 	<p>It is acknowledged that the proposed project is part of the larger Inland Rail Project and this should be discussed. However, it is considered that to respond appropriately to the COG's TOR requirements, the Draft EIS should discuss aspects such as perceived benefits as they relate to the proposed alignment for the proposed project, and not just the broader benefits from Inland Rail in capital cities.</p> <p>To be compliant with TOR 5.1, the Draft EIS should discuss all relevant environmental, social and economic impacts as they relate directly to the proposed B2G alignment (i.e., TRC and Goondiwindi Regional Council (GRC) areas).</p> <p>The proponent should consider that while the proposed project is a component of Inland Rail, the Draft EIS and its assessment process relates directly to the B2G Section of Inland Rail and should therefore focus on providing a discussion on any perceived benefits for the LGAs which the proposed alignment traverses. Section 2.3 for example, should provide a detailed discussion regarding the perceived benefits to the LGAs, rather than simply referring to benefits for Melbourne, Sydney and Brisbane.</p>	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 7.2.3 describes the benefits of training and employment to local residents. Appendix X: Social Impact Assessment, Section 7.4.9 describes the potential legacy benefits that would eventuate in the Project region, and has been further detailed in response to submissions.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 7.2.3</p> <p>Section 7.4.9</p>
218	218.0058		Editorial		<p>Multicriteria analysis: This Figure shows a summary of 4 corridor options with several decision criteria weighted as favourable through to highly unfavourable. Why isn't the Multicriteria Analysis shown in Figure 2.5 used as the decision criteria for Figure 2.15?</p>	<p>Prepare a new Figure 2.9 and Figure 2.15 using the Multicriteria Analysis shown in Figure 2.5 as the decision criteria being responded to and update text accordingly.</p>	<p>While the multicriteria analysis (MCA) tool provided an important means of establishing a preference of one possible alignments over others, route selection was the result of previous locational and feasibility studies and the outcomes of ongoing consultation.</p> <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016 with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> ▶ Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson ▶ Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton ▶ Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton ▶ Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case would be via Wellcamp Charlton was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ the outcomes of the MCA. <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0058		Editorial		Multicriteria analysis: This Figure shows a summary of 4 corridor options with several decision criteria weighted as favourable through to highly unfavourable. Why isn't the Multicriteria Analysis shown in Figure 2.5 used as the decision criteria for Figure 2.15?	Prepare a new Figure 2.9 and Figure 2.15 using the Multicriteria Analysis shown in Figure 2.5 as the decision criteria being responded to and update text accordingly.	<p>While the multicriteria analysis (MCA) tool provided an important means of establishing a preference of one possible alignments over others, route selection was the result of previous locational and feasibility studies and the outcomes of ongoing consultation.</p> <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016 with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case would be via Wellcamp Charlton was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.72.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the MCA. <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works (refer to Section 2.9.1 of Chapter 2: Project Rationale). The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9.1 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
218	218.0059	Local Government	Approvals/ conditions/ recommendations		Water Supply (Safety and Reliability) Act 2008: Section 3.5.34.2 states that this legislation is not relevant to the proposed project as the proponent will not be acting as a service provider. The proponent will however be required to locate community infrastructure (such as water and sewer services) and as a result, this legislation requires consideration.	The Draft EIS requires update to correctly include the legislative requirements relating to the required relocation of community infrastructure as a direct result of the proposed project.	As outlined in Chapter 3: Legislation and Project Approvals Process, Section 3.47 and 3.4.8, electricity infrastructure upgrades and relocations will be subject to separate assessments, with all necessary approvals obtained prior to the relevant works commencing. The Project will comply with requirements of the Electricity Act 1994 and Electrical Safety Act 2002.	Chapter 3: Legislation and Project Approvals Process Section 3.47 Section 3.48
218	218.0060		Approvals/ conditions/ recommendations		<p>Legislation and approvals: The OCGs TOR (6.8) requires the Draft EIS assess the extent to which the construction and operation of the project meets all statutory and regulatory requirements of the State and that the intended outcomes are consistent with current state policies and guidelines:</p> <p>Chapter 3, Section 3.1 states that this Chapter summarises the key legislation and statutory instruments, including supporting plans and policies that are relevant to the project, and the approvals necessary for the construction and operation of the project. This statement is incorrect as many approvals, and particularly state policies and guidelines, are not provided in Chapter 3, rather they have been included in the technical chapters. Further, this is not mentioned or referenced in Chapter 3.</p> <p>In addition, technical review of the EIS has identified that some data, guidelines and standards which were used to inform technical assessments have been identified as out of date or inappropriate to the proposed project. Further comment in relation to this issue is provided in detail in relevant comments below.</p>	<p>The Draft EIS states that the approvals required for the project are consolidated in Chapter 3. However, Chapter 3 only provides a discussion regarding Commonwealth and State Legislation and touches on Local Government Approvals. It does not include more detailed information regarding legislation, which is provided in the technical chapters along with relevant state policies and guidelines appropriate to each individual assessment. This means the reader is required to constantly refer to individual technical chapters to identify all regulatory requirements for the proposed project.</p> <p>The Draft EIS should summarise all regulatory requirements in one location, rather than relying on the technical chapters to provide legislative information (and cause confusion for the reader) so that the EIS adequately and easily illustrates whether the proposed project can and will meet all regulatory requirements. Technical chapters should summarise the application of previously discussed statutory and regulatory requirements as they apply to that specific technical assessment.</p> <p>Additionally, Chapter 3 should only reference legislation and provide high-level insight into its application to the proposed project. This Chapter should not contain detailed descriptions of potential requirements or propose mitigation measures.</p>	<p>The intent of Chapter 3: Legislation and Project Approvals Process is to summarise the Commonwealth Government and Queensland Government legislation relevant to the Project and identify the approvals, permits, licences and authorities necessary for the Detailed Design, Construction Works and Operations stages of the Project.</p> <p>It has been deemed appropriate for Chapter summaries that have been derived from the technical reports to further summarise legislation specific to a technical discipline. This allows Chapter 3: Legislation and Project Approvals Process to capture a high level summary on information relevant to legislation and approvals processes.</p>	Chapter 3: Legislation and Project Approvals Process
218	218.0061	Local Government	Approvals/ conditions/ recommendations		<p>Local Government Act: The Draft EIS does not generally recognise the Local Government Act 2009 and TRCs statutory powers as a road authority under that Act.</p> <p>Section 3.6.2 includes a statement that commits the proposed project to adhere to and be carried out in accordance with relevant local laws, where applicable. However, there is no detail provided regarding which local laws are applicable, or which assessment criteria issues like noise impacts are assessed against. As a result, the Draft EIS is essentially dismissing local law requirements.</p> <p>The Draft EIS does not otherwise recognise TRCs local laws or acknowledge any proposed approvals or mitigation measures which may be required by TRC.</p> <p>Given this, the Draft EIS does not meet all statutory and regulatory requirements provided in TOR 6.8.</p> <p>TRC Planning Scheme and Planning Scheme Policies: The Draft EIS does not recognise the Toowoomba Region Planning Scheme or planning scheme policies including Engineering Standards for Transport and Drainage.</p> <p>As a result, the requirements of TOR 10.9 have not been met as the Draft EIS has not adequately described the planning schemes for the proposed alignment.</p> <p>Professional Engineers Act: The Draft EIS does not recognise the Professional Engineers Act 2002 which governs the provision of engineering services in Queensland. Given this, the Draft EIS has not met all statutory and regulatory requirements of the State (as required by TOR 6.8).</p> <p>Water requirements: The Draft EIS provides limited discussion regarding the requirements of the Water Act 2000 and Water Supply Safety and Reliability Act 2008 to consider impacts on existing licence holders, particularly in terms of extraction from storages beyond what is stated in the legislation.</p>	<p>The Draft EIS requires amendment to recognise the Local Government Act 2009 and TRCs statutory powers under that Act, the Toowoomba Region Planning Scheme (including PSP%232 Engineering Standards for Transport and Drainage) and provide sufficient information in relation to proposed mitigation measures which will enable appropriate approval conditions to be developed in relation to TRCs requirements.</p> <p>This should include, but not be limited to:</p> <ul style="list-style-type: none"> Defining which local laws are applicable to the proposed project and providing a statement of intended compliance. Clearly identify which impacts will be managed by local laws and investigate approval requirements for both construction and operation. Justify these decisions by referencing applicable legislation. Commit to the responsibility of managing complaints from sensitive receptors with regards to noise, lighting and all other impacts during both construction and operational phases of the project. The Draft EIS should be amended to recognise the Professional Engineers Act 2002 and to ensure that all engineering services associated with the proposed Project in Queensland are provided in accordance with the Act. <p>These requirements must be adhered to (before, during and after) including ongoing operations and maintenance phase.</p> <p>TRC request that the OCG impose the following condition:</p> <p>The proponent is required to adhere to the requirements of the Toowoomba Region Planning Scheme (including, but not limited to, PSP Engineering Standards for Transport and Drainage) before, during, and after construction, operation and maintenance activities resulting from the proposed project. Further, the proponent is required to consult with TRC and to provide TRC with sufficient information in relation to proposed mitigation measures which will enable appropriate approval conditions to be developed in accordance with TRCs requirements at least six months prior to the commencement of any construction activities.</p> <p>The Draft EIS requires amendment to include a discussion on the process to be adopted to identify potential impacts on existing licensed water users as a result of proposed project activities and how these impacts will be mitigated to ensure that there is no significant residual impact from the proposed project.</p>	<p>The revised draft EIS is not seeking approval or stated conditions associated with any approval or permit associated with the <i>Local Government Act 2009</i> (Section 3.5.1, Chapter 3: Legislation and Project Approvals Process). Preparation of application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the Detailed Design and Construction Works stage.</p> <p>The Coordinator-General may impose stated conditions that must be incorporated into subsequent development approvals. They may also provide recommendations for other approvals required by the Project (Chapter 3: Legislation and Project Approvals, Section 3.21).</p>	Chapter 3: Legislation and Project Approvals Process Section 3.21 Section 3.5.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0062	Local Government	Approvals/ conditions/ recommendations		Water requirements: The Draft EIS provides limited discussion regarding the requirements of the Water Act 2000 and Water Supply Safety and Reliability Act 2008 to consider impacts on existing licence holders, particularly in terms of extraction from storages beyond what is stated in the legislation.	The Draft EIS requires amendment to include a discussion on the process to be adopted to identify potential impacts on existing licensed water users as a result of proposed project activities and how these impacts will be mitigated to ensure that there is no significant residual impact from the proposed project.	Chapter 13: Surface Water, Chapter 15: Groundwater and Chapter 8: Land Use and Tenure have been updated following completion of construction water studies. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements. The revised draft EIS includes a description of the process/es adopted to identify potential impacts on the existing environment (including licenced water users). This is a ToR, a specific objective of the EIS from the proposed Project. Section 15.3.2 of revised draft EIS Chapter 15: Groundwater discusses the adopted methodology, including predictive modelling, to identify potential impacts on groundwater as a result of the proposed Project. Table 15-7 details the water entitlements/licences in the groundwater study area by Water Plan (developed under the Water Act 2000, see Section 15.2 of Chapter 15: Groundwater). Chapter 15: Groundwater, Section 15.7 presents mitigation measures that may be adopted to avoid/minimise the potential impacts identified in Section 15.6, throughout the various Project stages. Specific mitigation measures that ARTC have committed to in order to minimise the identified impacts include ongoing investigations, a bore survey, and refinement of the modelling with the outputs of the ongoing investigations to better understand the extent and duration of potential impacts. The Project footprint (temporary footprint required to enable the Project and permanent footprint that remains after construction) is wholly contained within the groundwater impact assessment area (1 km radius from rail centreline). Section 15.5.4 details the breakdown for registered and unregistered bores within the impact assessment area, and how that information was utilised to develop the revised draft EIS. The predictive modelling does not indicate impact to any bore (registered or not) from predicted Project groundwater impacts. Project-specific monitoring bores more installed, as detailed in Section 15.4.A total of 48 Project bores comprise the revised groundwater monitoring network and can form the basis of the groundwater management and monitoring plan (GMMP) (Table 15-21). Any water entitlements attached to these bores warrant discussion between ARTC and the landholder to identify the most appropriate solution for that landholder. The Water Supply Safety and Reliability Act 2008 provides framework for water service providers and their customers and is not considered relevant for groundwater users in this context.	Chapter 8: Land Use and Tenure Chapter 13: Surface Water Chapter 15: Groundwater Section 15.2 Section 15.3.2 Section 15.4 Section 15.5.4 Section 15.6 Section 15.7 Table 15-7 Table 15-21 Appendix B5: Construction Water Requirements
218	218.0063		Project scope	Survey effort/field investigation data	Assessment methodology: Table 4.3 describes the not significant consequence for environment as contained environmental damage fully recoverable, no cost to ARTC or action required. As the lowest risk consequence criteria available, this is a vague, unqualified benchmark that provides little to no confidence for minimising any proposed environmental impact to ensure that there is no significant residual impact from the proposed project. Further, TRC do not consider contained environmental damage fully recoverable, no cost or ARTC action required an appropriate commitment for mitigating environmental impacts from the proposed project as it completely dismisses the best practice standard of no environmental impact. Furthermore, no reference is made in the environment consequence criteria to levels of environmental harm that are described in Chapter 1 of the Environmental Protection Act 1994.	The Draft EIS should be revised to define what is meant by contained environmental damage. This statement sends a message that contained environmental damage is acceptable environmental damage. The document requires further information such as: <ul style="list-style-type: none">Environment consequence criteria should refer to levels of environmental harm that are described in Chapter 1 of the Environmental Protection Act 1994.How environmental damage will be contained.Details of the actual impacts and risks associated with this containment.Include ARTC action required against the four higher-consequence levels. Higher consequences should require the proponent to remediate impacts.Describe the difference between contained and isolated environmental damage.Explain why the document fails to identify no environmental impact as the best outcome for determining risk.	Chapters 8-22 of the revised draft EIS describe in detail the potential impacts of the Project on environmental factors. The risk assessment method was applied to specific matters that might be impacted by the Project where impacts could not be quantified. This includes unknown or unpredictable impacts from land resources, transport and access, hazard and risk, and waste management. In these instances, potential impacts are assessed in terms of how likely they are to occur, and the consequences if they do occur. Likelihood and consequence criteria, and the resulting risk matrix are set out in Chapter 4: Assessment Methodology Table 4.3, Table 4.4 and Table 4.5. These criteria have been established to be consistent with the intent of AS ISO 31000:2018 Risk Management—Guidelines (Standards Australia, 2018b). Risk assessments have been documented in tabular form in the relevant EIS chapters. Once risk is determined for a potential impact, appropriate mitigations measures to reduce risk are described and the residual risk after application specified.	Chapter 4: Assessment Methodology Table 4.3 Table 4.4 Table 4.5
218	218.0063		Project scope	Survey effort/field investigation data	Assessment methodology: Table 4.3 describes the not significant consequence for environment as contained environmental damage fully recoverable, no cost to ARTC or action required. As the lowest risk consequence criteria available, this is a vague, unqualified benchmark that provides little to no confidence for minimising any proposed environmental impact to ensure that there is no significant residual impact from the proposed project. Further, TRC do not consider contained environmental damage fully recoverable, no cost or ARTC action required an appropriate commitment for mitigating environmental impacts from the proposed project as it completely dismisses the best practice standard of no environmental impact. Furthermore, no reference is made in the environment consequence criteria to levels of environmental harm that are described in Chapter 1 of the Environmental Protection Act 1994.	The Draft EIS should be revised to define what is meant by contained environmental damage. This statement sends a message that contained environmental damage is acceptable environmental damage. The document requires further information such as: <ul style="list-style-type: none">Environment consequence criteria should refer to levels of environmental harm that are described in Chapter 1 of the Environmental Protection Act 1994.How environmental damage will be contained.Details of the actual impacts and risks associated with this containment.Include ARTC action required against the four higher-consequence levels. Higher consequences should require the proponent to remediate impacts.Describe the difference between contained and isolated environmental damage.Explain why the document fails to identify no environmental impact as the best outcome for determining risk.	Chapters 8-22 of the revised draft EIS describe in detail the potential impacts of the Project on environmental factors. The risk assessment method was applied to specific matters that might be impacted by the Project where impacts could not be quantified. This includes unknown or unpredictable impacts from land resources, transport and access, hazard and risk, and waste management. In these instances, potential impacts are assessed in terms of how likely they are to occur, and the consequences if they do occur. Likelihood and consequence criteria, and the resulting risk matrix are set out in Chapter 4: Assessment Methodology Table 4.3, Table 4.4 and Table 4.5. These criteria have been established to be consistent with the intent of AS ISO 31000:2018 Risk Management—Guidelines (Standards Australia, 2018b). Risk assessments have been documented in tabular form in the relevant EIS chapters. Once risk is determined for a potential impact, appropriate mitigations measures to reduce risk are described and the residual risk after application specified.	Chapter 4: Assessment Methodology Table 4.3 Table 4.4 Table 4.5
218	218.0064	Local Government	Flora and Fauna		The Draft EIS requires amendment to include a discussion regarding MLES, MSES and MNES and a rationale regarding the proposed 'moderate' MLES sensitivity classification. The Draft EIS should also discuss and map predicted flood impacts against known areas of local, state and federal environmental significance and further, describe how proposed impacts to any environmentally significant area will be avoided.	MLES, MSES, MNES and TECs: The Major and High sensitivity criteria provided in the Draft EIS appear to ignore matters of local environmental significance (MLES). Flora or fauna species which are common throughout the state may be locally rare or the last remaining local population at the boundary of its normal distribution/habitat range and therefore should be considered in an appropriate way. Section 10.4.2 notes that the impact assessment for flora and fauna only focused on sensitive environmental receptors as defined by Section 5 of the Environmental Offsets Regulation 2014. No MLES are included in this regulation. Tables 10.32, 10.33, 10.34 and 10.35 do not discuss MLES, while Section 10.9.14 notes that flooding 'should not' impact habitat for Matters of National Environmental Significance (MNES) species or Threatened Ecological Communities (TECs) in more than a minor or transient manner. There is no discussion provided for impacts on MLES or MSES. The Draft EIS fails to appropriately address TOR 11.95(a) as MLES, MSES and MNES are barely addressed.	Chapter 11: Flora and Fauna has been updated to include MLES, MSES and MNES species in site investigations and is outlined within the details of Field Methodology.	Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7
218	218.0065	Local Government	Flora and Fauna	Increase in flows	It is accepted that the presence of fencing across floodplains creates issues relating to flooding events and water flow and has the potential to present hazard and risk issues and should be managed in an appropriate way, including finding alternatives where appropriate. However, it is also considered that the lack of fencing or other barriers to prevent access to the rail corridor presents a significant safety risk to the local community, fauna and/or livestock. The Draft EIS should include a discussion on how the 'guideposts or other alternative means of protection' mentioned in Section 5.2.10.1 will minimise risk to the local community, native fauna and/or livestock, including providing specific detail regarding 'the alternate means of protection'. The draft EIS should be amended to provide detail relating to fencing across floodplains and reference design, including, but not limited to, how and where fences will terminate prior to the rail corridor crossing a floodplain, and how this will be achieved while at the same time preventing access to the rail corridor by the community, fauna and/or livestock. In relation to fencing across small waterways, the Draft EIS should consider the potential hazard and risk presented by flooding events in these waterways and how this relates to the floodplain impacts and the rationale the Draft EIS provides regarding not fencing across floodplains. This is required for the draft EIS to meet Section 10.10 of the Coordinator General's Terms of Reference, which requires the proponent to 'Describe the following information about the proposed project: (d) the location, design, capacity and management of all required infrastructure...'. The Draft EIS should be amended to address areas across the floodplains where landowners will no longer be able to access their own land for the purpose of running livestock because there will be no fencing in place. Given the issues regarding fencing or other works across the floodplain, it is also recommended that any proposed measures to manage access to the rail corridor are considered as part of Expert Panel Inland Flood Study Group and the Draft EIS.	Fencing across floodplains and waterways: TOR 5.1 requires that 'the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the project are identified and assessed...' Section 5.2.10.1 of the Draft EIS acknowledges that there may be issues with fencing across floodplains and references community concerns in relation to same. It specifically mentions the Condamine River floodplain, and cites community concerns regarding: <ul style="list-style-type: none">Fencing increasing 'the risk of debris being trapped on the fence and causing blockage, potentially exacerbating the risk of flooding impacts and resulting in ongoing maintenance issues'; andFencing 'can be washed away in flood events, causing issues to downstream properties and infrastructure, and requires reinstatement'. The Draft EIS further states that fencing across floodplains has not been included in the reference design, stating that 'guideposts or other alternative means of protection' will be installed to demarcate the rail corridor and prevent people, fauna and/or livestock accessing the corridor. The Draft EIS also states that 'fencing across small waterways will be designed to avoid storm damage and to retain effective stock control,' but does not mention flooding. Further, the document fails to address areas if there are areas where landowners will no longer be able to access their own property for the purpose of running livestock as there will be no fencing in place.	To limit access to the Project's rail alignment, fencing will be provided for the majority of the rail corridor. Fencing will act to protect adjoining lands from trespass and to prevent livestock from gaining access to the railway. Fencing is to extend between the corridor and private lots or property adjoining the railway. Property or land use specific fencing considerations will be discussed with relevant landowners as part of the Detailed Design stage. Refer to Section 5.4.12, within Chapter 5: Project Description. As the Project comprises substantial greenfield works in rural agricultural and grazing areas, standard rural fencing will typically be provided according to ARTC fencing procedure, Boundary Fencing ETM-17-02 (available on the ARTC Extranet: extranet.artc.com.au). Where ARTC propose to construct within the Queensland Rail corridor for all returned works (South Western Line and Millmerran Branch Line), ARTC shall comply with Queensland Rail standards; this includes new and replacement fencing. All existing fencing is proposed to be removed and replaced. Where ARTC are proposing to construct new railway corridor that coincides with road manager or landowner fencing, this will be replaced typically with ARTC fencing procedure, Boundary Fencing ETM-17-02. Where superior fencing is required (for example where tracks are in close proximity to roads and/or communities, or where trespass is anticipated to occur) a 1.8 m chain link boundary fence may be provided. Feedback from adjacent landowners indicates that fencing on the Condamine River floodplain: <ul style="list-style-type: none">Increases the risk of debris being trapped on the fence and causing blockage, potentially exacerbating the risk of flooding impacts and resulting in ongoing maintenance issuesCan be washed away in flood events, causing issues to downstream properties and infrastructure and subsequently requires re-instatement. Maintaining effective fauna movement across the rail corridor has been an important design consideration for the Project. A preliminary fauna movement provision and fencing strategy has been prepared for the Project and is included in Appendix P: Fauna Connectivity Strategy. The purpose of this strategy is to provide an overview of connectivity impacts across the landscape (pre and post the Construction) relating to particular species or species guilds and propose connectivity structures and fencing strategies to mitigate the loss of connectivity and reduce wildlife mortality. The opportunity to provide fauna exclusion fencing in association with the above-mentioned fauna crossings has been identified. This fencing would guide animals towards the preferred fauna crossing structure or passage, while reducing their potential to be struck by vehicles or trains. Where practical, the strategy provides recommendations for conceptual fauna crossing design types and associated fencing with consideration of the ARTC Fauna Design Guidelines (ARTC, 2021) and Fauna Sensitive Road Design—Volume 2 (DTMR, 2000). The feasibility of the proposed connectivity structures/opportunities and fencing strategies will then be determined during the Detailed Design stage of the Project.	Chapter 5: Project Description Section 5.4.12 Appendix P: Fauna Connectivity Strategy
218	218.0066	Local Government	Stakeholder engagement		Utility provider management: Section 5.3.6 states that the required utility realignment will be 'undertaken by the utility provider.' TRC is yet to make a written agreement with the proponent regarding who will be responsible for realigning utilities requiring relocation as a result of the proposed project. Discussions with the Inland Rail Utility Group are currently ongoing however agreed upon terms and conditions regarding utility relocations have not been included as commitments in the Draft EIS and as such, the requirements of TOR 7.8 have not been met.	The Draft EIS requires updating to provide accurate information regarding consultation with TRC to date and to discuss issues such as who is responsible for relocating utilities which require removal in order to accommodate the proposed project.	ARTC has successfully engaged with all utility owners impacted by the Project and have collaborated on solutions for all identified impacts on infrastructure, based on the revised reference design. ARTC notes that Chapter 6: Stakeholder Engagement and Appendix F: Impacted Properties of the revised draft EIS has been updated to include details of recent engagement with utilities and infrastructure owners, including TRC. Consultation with Department of Transport and Main Roads is likely to require ARTC to consult with, and either secure the consent of the Utility Authorities (including local councils) on how their infrastructure assets will be treated under the Project and to use best endeavours to obtain their consent before commencing construction that would affect infrastructure managed by a Public Utility Provider.	Appendix E: Consultation Report Section 5

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0067	Local Government	Land Resources		Soil stabilisation: Section 5.4 does not include reference to the likely significant volumes of lime and gypsum which will be required for soil stabilisation along the proposed alignment, or more importantly, where lime or gypsum may be sourced (in close proximity to the proposed project).	The Draft EIS (Section 5.4 and Chapter 8) requires an update to include a discussion regarding the significant volumes of lime and gypsum required for the proposed project and where it will be sourced from, transport routes etc. The Draft EIS should take into consideration and refer directly to the geomorphology requirements from the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Review when updating this section.	Sources of material for any soil stabilisation needed will be determined by the Contractor during detailed design when construction methods have been determined and soil trials have been completed. The sourcing of materials which may be needed for any soil stabilisation requirements will be undertaken in accordance with necessary approvals requirements. Appropriate risk mitigation and safety measures will be implemented to ensure stabilisation materials including but not limited to lime and gypsum, are safely transported to and stored onsite to avoid spillage and minimise associated dust. The placement and treatment of the stabilisers during construction will also be planned and executed to avoid spillage and minimise associated dust.	N/A
218	218.0068		Editorial		Hours of work: Section 5.4.4 defines proposed hours of work as generally between 6.30am to 6pm Monday to Friday and 6.30am to 1pm on Saturdays. However, based on other sections of the Inland Rail project and similar infrastructure projects of this scale, general construction hours are more likely to be 6.30am to 6pm Monday to Saturday and 6.30am to 6pm on Sundays and public holidays when there is likely no/minimal impact on sensitive receivers.	The Draft EIS requires updating to meet the requirements of TOR 5.1 and to: update working hours to be more reflective of the likely construction hours. Construction contractors are unlikely to want to have short days and days with no work. Associated impacts with any changes to construction working hours (e.g., amenity impacts on local communities) must also be reviewed to determine any additional adverse impacts and any further mitigation measures	Chapter 5: Project Description, Section 5.6.2 describes the construction hours of work. This Section has been updated to include non-standard construction hours where works comply with relevant construction noise criteria - aligning with DTMR Noise Code of Practice.	Chapter 5: Project Description Section 5.6.2
218	218.0068		Editorial		Hours of work: Section 5.4.4 defines proposed hours of work as generally between 6.30am to 6pm Monday to Friday and 6.30am to 1pm on Saturdays. However, based on other sections of the Inland Rail project and similar infrastructure projects of this scale, general construction hours are more likely to be 6.30am to 6pm Monday to Saturday and 6.30am to 6pm on Sundays and public holidays when there is likely no/minimal impact on sensitive receivers.	The Draft EIS requires updating to meet the requirements of TOR 5.1 and to: update working hours to be more reflective of the likely construction hours. Construction contractors are unlikely to want to have short days and days with no work. Associated impacts with any changes to construction working hours (e.g., amenity impacts on local communities) must also be reviewed to determine any additional adverse impacts and any further mitigation measures	Chapter 5: Project Description, Section 5.6.2 describes the construction hours of work. This Section has been updated to include non-standard construction hours where works comply with relevant construction noise criteria - aligning with DTMR Noise Code of Practice.	Chapter 5: Project Description Section 5.6.2
218	218.0069	Local Government	Editorial		Inappropriate location of sediment basins: The Draft EIS identifies 17 sedimentation basins (in Table 5.27) will be required for the proposed project. However, the majority of these sediment basins are proposed to be located in areas of environmental significance, namely: <ul style="list-style-type: none"> SB 1 - chainage 48.5 km; SB 3 - chainage 52.7 km; SB 4 - chainage 55.5 km; SB 5 - chainage 60.4 km; SB 6 - chainage 61.5 km; SB 7 - chainage 63.1 km; SB 8 - chainage 73.6 km; SB 2 - chainage 73.7 km; SB 10 - chainage 170.6 km - koala habitat; and SB 12 - chainage 179.9 km - koala habitat. 	The Draft EIS requires amendment to adequately address the location of sediment basins in areas of environmental significance including: <ul style="list-style-type: none"> Re-ordering Table 5.27 by ascending chainage reference, rather than the current haphazard list. Explaining the extent of additional clearing and environmental impacts created by the proposed footprint of these sedimentation basins. Identifying whether any of these proposed basins meet the criteria for referable dams (dam wall height, volume, downstream populations). Whether dam failure analysis will be completed for any of these basins. Whether the basins will be left on site permanently. Describe how basins will be rehabilitated when they are no longer required. Detail regarding the reasoning behind why SB 2 is located so close to SB 8. Why the proponent is proposing to locate sediment basins in known koala habitat areas which will result in a reduction in habitat for this vulnerable species. - Incorporate the key principles of ecological impact management (i.e., avoid and minimise) into the selection of sediment basin locations. 	The revised reference design for the Project includes 20 sediment basins within the Project footprint. These sediment basins are described, by ascending chainage, in Chapter 5: Project Description, Table 5-33. Chapter 14: Flooding and Geomorphology, Section 14.9.1 states that the number of sediment basins required for the final earthworks design will be confirmed during detailed design. <p>Sediment controls, including basins, are located within planned drainage lines within the construction footprint of the Project to reduce flow rates, the capture of sediment-laden water and to facilitate further capture via settlement of sediment, thereby reducing the potential for environmental impacts downstream. The controls are a mitigation tool to reduce impacts to sensitive aquatic receptors as well as minimise other impacts on the surrounding ecosystems. For example, scour and erosion, by slowing water flow velocities and preventing sediment being deposited in adjoining environments.</p> <p>Sediment basins are anticipated to be in place for the duration of the Construction Works stage until such time that the risk is minimised. The sediment basins are expected to be small in size to allow for regular maintenance and maintain capacity and are therefore, not expected to be referable under water plans. Once the risk of erosion and sedimentation has been sufficiently reduced through the construction program and permanent works are in place, the redundant temporary work areas will be stabilised and treated in accordance with the Project's landscape and rehabilitation management plan.</p> <p>Ongoing detailed design of drainage and water quality treatment for the Operations stage will continue and include identification of permanent water quality treatment locations. If detention basins, permanent drainage lines (or similar) are required, efforts will be undertaken to align with the temporary Construction Works stage controls to minimise vegetation disturbance and operational footprint.</p>	Chapter 5: Project Description Table 5-33 Chapter 14: Flooding and Geomorphology Section 14.9.1
218	218.0070		Project scope		Over-requirement of laydown areas: The Draft EIS proposes 74 laydown areas along 216 km of proposed rail alignment. This equates to 1 laydown area for every 2.9 km of track or carting material a distance to either side of a laydown area of only 1.45 km. This is an excessive number of laydown areas resulting in unnecessary environmental disturbance. At least 17 of the proposed laydown areas are located within the Bringally State Forest (sensitive environmental area) which is unacceptable to TRC as there appears to be no consideration of the key principles of ecological impact management (i.e., avoid and minimise). <p>This excessive number of proposed laydown areas fails to meet the requirements of TOR 5.1, particularly to recommend mitigation measures to avoid or minimise adverse impacts as mitigation should always consider minimising footprint size as far as possible to ensure that there is no significant residual impact from the proposed project, which the current arbitrary allocation of laydown areas fails to do.</p>	The Draft EIS requires amendment to meet the requirements of TOR 5.1 and to amend the currently excessively large number of laydown areas to a more reasonable number and to provide an estimate of the size of each pad (length and width and total surface area). <p>The Draft EIS should also aim to avoid and minimise locating laydown areas in environmentally sensitive areas. Where this is not achievable, the number and size of laydown areas must be minimised as far as possible to ensure that there is no significant residual impact from the proposed project. The Draft EIS should include a clear commitment to appropriately mitigating disturbances as a result of the proposed project.</p>	Laydown areas have been strategically located for the Project to enable robust construction methodologies and are described and located in Section 5.6.7 of Chapter 5: Project Description. Laydown areas have been positioned to avoid or minimise potential impacts to environmental and social receptors. <p>Land that is temporarily disturbed in support of construction activities, including laydowns, will be rehabilitated at the end of its use, unless otherwise agreed with the relevant landowner. It is also noted that construction will occur progressively along the Project alignment and, as such, the need (duration) for the temporary laydown areas has been minimised at each location.</p> <p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>In the draft EIS there was only one lay down area located in Bringally State forest, this laydown area has since been relocated to a location that is not within the State forest.</p> <p>ARTC is committed to ongoing consultations with impacted landowners through the Detailed Design and Construction Works stages with the contractor. This will enable the Project to further develop and implement property-specific mitigation measures to avoid or minimise impacts.</p>	Chapter 5: Project Description Section 5.3.3 Section 5.6.7
218	218.0070		Project scope		Over-requirement of laydown areas: The Draft EIS proposes 74 laydown areas along 216 km of proposed rail alignment. This equates to 1 laydown area for every 2.9 km of track or carting material a distance to either side of a laydown area of only 1.45 km. This is an excessive number of laydown areas resulting in unnecessary environmental disturbance. At least 17 of the proposed laydown areas are located within the Bringally State Forest (sensitive environmental area) which is unacceptable to TRC as there appears to be no consideration of the key principles of ecological impact management (i.e., avoid and minimise). <p>This excessive number of proposed laydown areas fails to meet the requirements of TOR 5.1, particularly to recommend mitigation measures to avoid or minimise adverse impacts as mitigation should always consider minimising footprint size as far as possible to ensure that there is no significant residual impact from the proposed project, which the current arbitrary allocation of laydown areas fails to do.</p>	The Draft EIS requires amendment to meet the requirements of TOR 5.1 and to amend the currently excessively large number of laydown areas to a more reasonable number and to provide an estimate of the size of each pad (length and width and total surface area). <p>The Draft EIS should also aim to avoid and minimise locating laydown areas in environmentally sensitive areas. Where this is not achievable, the number and size of laydown areas must be minimised as far as possible to ensure that there is no significant residual impact from the proposed project. The Draft EIS should include a clear commitment to appropriately mitigating disturbances as a result of the proposed project.</p>	Laydown areas have been strategically located for the Project to enable robust construction methodologies and are described and located in Section 5.6.7 of Chapter 5: Project Description. Laydown areas have been positioned to avoid or minimise potential impacts to environmental and social receptors. <p>Land that is temporarily disturbed in support of construction activities, including laydowns, will be rehabilitated at the end of its use, unless otherwise agreed with the relevant landowner. It is also noted that construction will occur progressively along the Project alignment and, as such, the need (duration) for the temporary laydown areas has been minimised at each location.</p> <p>The revised draft EIS has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. In addition, changes have been made to the reference design that are summarised in Chapter 5: Project Description, Section 5.3.3. Ongoing consultation will continue during all future stages of the Project.</p> <p>In the draft EIS there was only 1 lay down area located in Bringally State forest, this laydown area has since been relocated to a location that is not within the State forest.</p> <p>ARTC is committed to ongoing consultations with impacted landowners through the Detailed Design and Construction Works planning process with the contractor. This will enable the Project to further develop and implement property-specific mitigation measures to avoid or minimise impacts.</p>	Chapter 5: Project Description Section 5.3.3 Section 5.6.7
218	218.0071	Local Government	Stakeholder engagement		Laydown areas: Section 5.4.7 Table 5.28 identifies a number of laydown areas for construction of the proposed project however the locations of these sites have not been included on a corresponding Figure (map). In addition, it appears that the majority of these sites are located on private property. From review of Chapter 15 (Social), it is not apparent that any consultation has occurred with private owners of land where the Draft EIS proposes to construct laydown areas. Such consultation could result in a number of sites becoming unavailable or possibly shifted to a different location. Further, this lack of consultation in relation to laydown areas on private property ensures the Draft EIS fails to meet the requirements of TOR 5.1 "... ensure that all relevant environmental, social and economic impacts of the project are identified and assessed..."	nil.	All landowners who are potentially impacted by the Project have been offered a meeting on property acquisition and compensation with DTMR. They have also been provided with property impact maps which include the location of temporary impacts such as laydowns. Landowners have been informed that the final determination of laydowns will be in consultation with the contractor. <p>Engagement with directly impacted landowners is detailed in Appendix E: Consultation Report, Section 4.</p>	Appendix E: Consultation Report Section 4
218	218.0072	Local Government	Project scope	Water quantity	Project-specific Construction Water Plan: The Draft EIS notes that water demand for the proposed project will be greatest during the construction phase where water will be required for earthworks, concrete batching, track works and non-resident workforce accommodations. <p>Chapter 5 Section 5.4.20.2 notes that water supply is critical for the project and TOR 11.55 to 11.57 requires the proponent to provide details on water requirements and sources for the project.</p> <p>Chapter 5, Section 5.4.20.2 and Appendix Z refer to the later preparation of a Project-specific Construction Water Plan during detailed design which will include the details of water demand, sources and contingencies. However, TOR 11.55 to 11.57 requires this information to be supplied in the Draft EIS and not later.</p> <p>Proposed water use and sources are of significant concern to TRC and the community. A true and accurate assessment of the impacts of the project on the regions water supplies cannot be made based on the information supplied by the proponent in the Draft EIS.</p> <p>The Draft EIS does not meet TOR 11.55 to 11.57 as the required level of detail regarding water demand and sources has not been supplied in the Draft EIS.</p>	The Draft EIS should be amended to meet the requirements of TOR 11.55 to 11.57 to allow for a true and accurate assessment of the impacts of the project on the regions water supplies. <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to consult with TRC regarding all aspects of water supply and use for the project and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities.</p> <p>Further to this, it is Toowoomba Regional Councils declared stance that all water sources raw, potable, surface and bore water, used to supply Toowoomba Communities are not available for construction of the Inland rail works by ARTC.</p> <p>Priority for water supply will always be for town water supply over any proposed project and the proposal to use any of these water sources for construction purposes is not considered an appropriate use of this resource by TRC.</p>	Chapter 5: Project Description, Section 5.6.24 provides estimated construction water volumes based on the revised reference design. <p>Section 5.6.24 states that both Toowoomba Regional Council (TRC) and Goondiwindi Regional Council (GRC) maintain a network of smart (automated) standpipes for potable water across their respective LGAs. However, both councils have advised that potable water from their networks is not available for use by the Project. Consequently, there is no intention to obtain Potable water from TRC or GRC sources.</p> <p>Section 5.6.24 identifies that the ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan.</p> <p>Chapter 5: Project Description, Section 5.8.10 states the Project's operational water requirements are anticipated to be minor, relative to the Construction Works stage requirements. Water may be required to support localised maintenance activities, such as high-pressure cleaning of culverts. An assessment will be made during stages of the Project to identify possible sources of water and their suitability for maintenance activities. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	Chapter 5: Project Description Section 5.6.24 Section 5.8.10 Appendix B5: Construction Water Requirements

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0073	Local Government	Project scope	Construction water supply	Construction water: Section 5.4.20 estimates a total of 2,536 ml of water will be required for earthworks during construction which equates to 11.7 ml/km. This appears to be a significant over estimation as experience on similar projects in similar climates with similar soil properties show an actual construction water use of somewhere between 2.5 and 3.5 ml/km.	It is recommended that the construction water estimates are reviewed during detailed design and against other Inland Rail projects such as Parkes to Narromine and Narrabri to North Star and a more realistic estimate developed.	Noted. Construction water estimates will be reviewed during detailed design and be used in the preparation of the Construction Water Plan, as described in Section 5.6.24. Detailed discussion of ARTC's construction water is outlined in Appendix B5: Construction Water Requirements. However, it should be noted that direct comparisons between rail projects in terms of ml/km can be misleading, as project-specific complexities can be over-looked. The water requirement for the Project has been estimated with consideration for the volume of earthworks required to construct rail and non-rail components of the project. A 'ml/km' value does not give full consideration to all dimensions of railway construction. When calculating water estimates, conservative rates of application have been adopted to ensure that volumes are not underestimated and that contingency for variables (e.g. climatic conditions) is factored into the sourcing strategy.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
218	218.0074	Local Government	Land Resources	Construction water supply	Sourcing of mains water: TRCs bulk water supply is not available for project use. As a result, the Draft EIS is not considered to have sufficiently identified local water sources which may be able to provide sufficient water for the proposed project construction without impacting current water users.	Given that TRC have no water available for the construction of the proposed project, the Draft EIS requires amendment to further consider the appropriate sourcing of water that excludes TRCs water resources. It is recommended that the proponent consider that water may also be available from: <ul style="list-style-type: none"> Stormwater runoff captured in sediment basins (this has been noted in Table 12.57, but not detailed as an option). Runoff from deep cuttings (especially if there is up to 3.3L/s flowing as stated in Chapter 12). Treated effluent from the Pittsworth and Millmerran towns (effluent could also be treated to a higher quality for additional purposes). <p>Further to this, it is Toowoomba Regional Councils declared stance that all water sources raw, potable, surface and bore water, used to supply Toowoomba Communities are not available for construction of the Inland rail works by ARTC.</p> <p>Priority for water supply will always be for town water supply over any proposed project and the proposal to use any of these water sources for construction purposes is not considered an appropriate use of this resource by TRC.</p>	The construction water strategy outlined in Chapter 5: Project Description Section 5.6.24 for the Project has been updated to reflect amendments to the reference design, stakeholder feedback received during consultation and from submissions on the draft EIS, as well as advances made in planning for construction of the Project. Revised details are provided in the revised draft EIS regarding: <ul style="list-style-type: none"> Estimated volumes required, by activity The quality of water required for various tasks The sourcing of water, including reliability and access considerations Monitoring of the take and usage of water. <p>The sourcing of water will vary and be dependent on the location of need and the intend purpose of use. In each instance, construction water will be purchased from existing licenced sources that have capacity within the limits of the current licenced entitlement/allocation (Chapter 5: Project Description Section 5.6.24).</p> <p>Both Toowoomba Regional Council and Goondiwindi Regional Council have advised through consultation and feedback on the draft EIS that potable water from their networks is not available for use by the Project. Consequently, there is no intention to obtain potable water from Toowoomba Regional Council and Goondiwindi Regional Council sources. Instead, Potable water for accommodation facilities and concrete batching will be obtained from potable networks within other LGAs, commercial bulk suppliers or from non-potable sources and subjected to treatment.</p> <p>Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS) (Chapter 5: Project Description Section 5.6.24). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>The ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements
218	218.0075	Local Government	Waste and Resource Management		Transport and treatment of sewage: Section 5.4.21 does not provide enough information regarding the transport and treatment of sewage or consider locations where reuse could be undertaken.	The Draft EIS requires update to include details of discussions with local authorities (including TRC) if planning to dispose sewage at municipal treatment facilities in order to identify suitable locations and other requirements. TRC requests that the OCG impose the following condition: The proponent is required to consult with TRC regarding all aspects of the transport and treatment of sewage generated by the project and to reach written agreement with TRC in relation to this issue at least six months prior to the commencement of any construction activities.	Project wastewater is discussed in Chapter 13: Surface Water, Section 13.25.1. Proposed mitigation measures to manage workforce accommodation wastewater has been outlined in surface water and waste management tables of Chapter 24: Draft Outline Environmental Management Plan. As outlined in Chapter 24: Draft Outline Environmental Management Plan, further engagement is to be undertaken by the contractor with owners and operators of licenced waste disposal facilities and licenced waste carriers. Inland Rail will continue to engage closely with Toowoomba Regional Council through the Detailed Design and Construction Works stages regarding transport and treatment of sewage generated by the Project.	Chapter 13: Surface Water Section 13.25.1 Chapter 24: Draft Outline Environmental Management Plan
218	218.0076	Local Government	Project scope	Construction water supply	Construction water supply: Chapter 5, Figure 5.48 and Table 5.37 and all Sections referenced in this comment nominate Cooby and Perseverance dams as potential sources of supply for construction water, despite TRC advising the proponent on many occasions that this is town water which is currently inadequate to provide water for the TRC community, let alone supply water for the proposed project. Figure 5.47 provides a graph showing construction water usage over time. The graphs current format may not provide an accurate representation of figures and should be updated to an alternative format to display figures in a clear and easily understood way. Further to this, many of the weirs and dams proposed for construction water use are located in drought affected areas. The use of this water for construction purposes for the proposed project is ill-advised and will create severe shortages for the community. Concrete batching: Areas nominated for batching plants do not have access to mains water supply. Water is not available for construction purposes from Brookstead (as proposed in the Draft EIS) as the system is already struggling. Water from Millmerran's water supply for may be considered by TRC for construction purposes, but this will be entirely dependent on community requirements and availability at the time. Chapter 12 does not consider the adverse impacts to residential supply from surface water extraction proposed to facilitate construction activities. Appendix P makes no commitment regarding impact assessment for residential/urban water receptors. TRC prioritises town water supply above any proposed project and the proposal to use any of these water sources for construction water purposes is not considered an appropriate option by TRC. This has already been discussed with the proponents project team in Toowoomba on several occasions. At no time has the proponent made an agreement with TRC to access and use TRC water sources. As a result of the issues described above, the Draft EIS fails to meet the requirements of TOR 5.1 and TOR 11.116.	The Draft EIS requires amendment to meet the requirements of TOR 5.1 and TOR 11.116 and to consider local usage of proposed water supplies which may not provide enough water to service both the local population and the construction activities of the proposed project. Existing users should be given priority designation at all times. Figure 5.47 requires update in order to allow the reader to easily interpret proposed construction water usage over time. Further, construction water should be presented in temporal and geographical scale for easy interpretation by the reader. The Draft EIS also requires update to propose new and appropriate sources of construction water supply (i.e., available for construction purposes), including that required for concrete batching plants. Section 5.7.10 needs to consider the requirements of existing users and Table 5.37 should indicate the priority of current usage in order to provide relevance for the reader. Appendix P should provide further clarity regarding residential/urban water receptors including, but not limited to, the consideration of adverse impacts to water quality and quantity for these receptors.	The construction water strategy for the Project has been updated to reflect amendments to the reference design, stakeholder feedback received during consultation and from submissions on the draft EIS, as well as advances made in planning for construction of the Project. Revised details are provided in Chapter 5: Project Description, Section 5.6.24 regarding: <ul style="list-style-type: none"> Estimated volumes required, by activity The quality of water required for various tasks The sourcing of water, including reliability and access considerations Monitoring of the take and usage of water. <p>Figure 5-23 shows the estimated water requirement over the construction period.</p> <p>The sourcing of water will be dependent on the location of need and the intended purpose of use. In each instance, construction water will be purchased from existing licenced sources that have capacity within the limits of the current licenced entitlement/allocation. Surface water sources with tradeable allocations greater than or equal to 300 megalitres are described in Table 5.35.</p> <p>Both TRC and GRC have advised through consultation and feedback on the draft EIS that potable water from their networks is not available for use by the Project as stated in Chapter 5: Project Description, Section 5.6.24. Consequently, there is no intention to obtain potable water from TRC or GRC sources. Instead, potable water for accommodation facilities and concrete batching will be obtained from potable networks within other LGAs, commercial bulk suppliers or from non-potable sources and subjected to treatment.</p> <p>Sources of construction water will be finalised as the construction approach is refined during the Detailed Design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>Section 5.6.24 identifies that the ultimate water sourcing strategy for the Project will be documented in a Construction Water Plan. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p>	Chapter 5: Project Description Section 5.6.24 Figure 5-23 Table 5-35 Appendix B5: Construction Water Requirements
218	218.0077	Local Government	Groundwater	Groundwater drawdown	Groundwater: The Draft EIS acknowledges that groundwater is not considered a priority supply option, however accessing groundwater is not completely ruled out. Groundwater access via TRC infrastructure (bores) is not approved by the Council and if granted (through the appropriate approval process), will need to be monitored for usage and impacts to existing council bores along route which service local communities. As mitigation strategies for groundwater were not prepared in close consultation with TRC, the Draft EIS does not meet the requirements of TOR 11.116.	The Draft EIS requires update to meet the requirements of TOR 11.116 and to commit to TRC requirements around accessing groundwater supplies.	As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. Currently the hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users (Table 15.20 Chapter 15: Groundwater). Further, the use of groundwater for construction water is not a preferred water source for the Project. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements. If the use of TRC bores is to be considered for construction water supply, the appropriate approval process will be complied with and monitoring will be conducted as per standard processes (Section 15.7.2 Chapter 15: Groundwater). Government bodies and local stakeholder have been consulted by ARTC regarding Water consultation as outlined in Table E-42 (Section 5.4) of Appendix E: Consultation Report. Following Project approval, ARTC is committed to upholding the engagement and consultation commitments, as the Project transitions through to construction. ARTC's future engagement responsibility during detailed design and construction are outlined in Section 7.2.6, Table E-72 of Appendix E: Consultation Report. The Proponents commitment to ongoing consultation with relevant government agencies and local stakeholders regarding groundwater is outlined in Appendix E: Consultation Report. Additionally, the commitment to a landowner bore make-good process is outlined in Section 15.7.4 of Chapter 15: Groundwater.	Chapter 15: Groundwater Section 15.7.2 Section 15.7.4 Table 15-17 Table 15-20 Appendix B5: Construction Water Requirements Appendix E: Consultation Report Section 5.4 Section 7.2.6 Table E-42 Table E-72
218	218.0078	Local Government	Project scope		Future proofing: Table 6.4 of the Draft EIS references the consideration of future asset requirements to not preclude opportunities for adjacent land use or business to access the Inland Rail corridor in the future. It is not clear whether this includes future requirements for the rail infrastructure beyond the design for freight movement to consider future passenger transport requirements. It is in the public interest that the Draft EIS consider that the Gowrie to Helidon Section of Inland Rail remove a critical bottleneck in the long-distance rail network, not just for freight rail but for all rail requirements. The original alignment of rail which crosses the Great Dividing Range at Toowoomba causes significant delays which make current passenger rail uncompetitive. With a major project business case underway for a faster Toowoomba to Brisbane rail connection and the Inland Rail project removing a rail bottleneck, the Draft EIS has missed an opportunity to value-add for local and regional communities.	The Draft EIS should be amended to consider that future-proofing for sustainability in the category of excellence would include considering passenger rail access before the rail tunnel. Considering the growth in Toowoomba's urban areas closest to the proposed projects Gowrie termination, there may be a future requirement for passenger access to the rail infrastructure. This would advance both local and regional economic and social benefits. The Draft EIS should give consideration to future access to the rail at Charlton/Gowrie as adjacent land use also includes a regional passenger airport.	Inland Rail will be open for any accredited operator to run a train along the rail line, once operational. The Business Case is based upon operators transporting freight (domestic goods) across a range of sectors to our cities, such as fresh food, packaged goods, hardware, white goods, and bulk goods. While Inland Rail is freight infrastructure, the decision to run passenger services will be a matter for each State Government and private operators. ARTC, the operators of Inland Rail, have a long history of working with Government and private operators to ensure passenger trains have access to the national rail network. This will continue to be the case for Inland Rail.	N/A
218	218.0079	Local Government	Hazard and Risk		Climate response: Table 6.4 of the revised draft EIS (under climate response) fails to mention heat wave as another potential climate risk. Studies have shown a higher risk in TRC from heat wave due to the heat island effect on the bare agricultural plains that the proposed rail infrastructure traverses. Experience in Victoria has shown that heat waves have a moderate to high impact on rail infrastructure compared to road infrastructure.	The revised draft EIS requires amendment to consider the likelihood and impact of heat waves on the sustainability of the proposed rail infrastructure and the safety of rail operations during heat waves.	Heat waves and the result impacts of prolonged, elevated temperatures, are assessed in Section 21.5.1.6 of Chapter 21: Hazard and Risk of the revised draft EIS.	Chapter 21: Hazard and Risk Section 21.5.1.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0080	Local Government	Project scope		<p>ISRS Rating: TOR 5.1 states that The EIS should demonstrate that the project is based on sound environmental principles and practices. The Principle of Sustainability is a key principle in consideration of environmental, social, economic and governance matters.</p> <p>The Draft EIS recognises the Inland Rail Programs role in demonstrating sustainability leadership and seeks to apply the Infrastructure Sustainability Council of Australia (ISCA) IS Rating System (ISRS) to achieve a rating of excellence across the proposed projects detailed design, construction and operation. This is a middle rating on a scale of Commended, Excellent, Leading. If seeking to demonstrate sustainability leadership, the target should be for a rating of Leading.</p> <p>Further, the Draft EIS uses Version 1.2 of the ISRS, rather than the current Version 2.0 that has been available since July 2018 and includes the opportunity to rate the planning phase of the proposed project as well.</p>	<p>The Draft EIS should be amended to commit to a role in demonstrating sustainability excellence in keeping with the rating target and to reflect the level of consideration given to sustainability matters in the Draft EIS at the planning stage (in line with the current ISRS).</p> <p>It is in the public interest that the Draft EIS be amended to provide more robust sustainability commitments including considering the more up to date ISRS Version 2.0 as a better fit for major and complex projects with many phases of development (such as the proposed project).</p> <p>Given this, TRC request the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to aim for a target of Gold as defined in Version 2.0 of the ISCA ISRS. 	<p>Version 1.2 of the ISCA rating system has been chosen for the whole Inland Rail Program to enable a consistent approach to integrating sustainability goals and objectives.</p> <p>Chapter 7: Sustainability has been updated in the revised draft EIS to provide more detail on the sustainability commitments and mitigations incorporated into design and future actions for construction and operation of the Project.</p>	Chapter 7: Sustainability
218	218.0081	Local Government	Project scope	Cumulative impacts	<p>Cumulative impact: TOR 6.6 requires a concise summary of cumulative impacts for technical studies while TOR 7.3 states cumulative impacts should be assessed over time and in combination with impacts created by the activities of other local, upstream and downstream land uses, major projects under construction, and proposed significant development progressing through the statutory assessment processes for which information is publicly available. The EIS should also propose means to suitably address predicted cumulative impacts. Outline ways in which the cumulative impact assessment and management could subsequently be progressed further on a collective basis.</p> <p>Grazing and cropping are the dominant land uses of the project footprint (refer to Chapter 7 Section 7.5.2.1). However, the Draft EIS does not include current land uses in the cumulative impact assessment, thereby failing the requirement of TOR 7.3. The assessment of cumulative impacts only considers existing and proposed infrastructure, industrial, intensive agriculture and resource projects which are relatively minor land uses. This is a major shortcoming of the Draft EIS as there is no consideration of cumulative environmental impact between the project and the dominant existing land uses.</p> <p>The cumulative impact sections currently provided in repetitive detail throughout the technical chapters, where TOR 6.6 calls for a precise summary. The dedicated cumulative impact Chapter (Chapter 21) should provide the reader with more value than to simply repeat information provided in a piecemeal and repetitive fashion in the technical chapters.</p> <p>Further, Section 21.5 recommends that proponents of other projects within the study area could be invited to participate in the Community Reference Group, which is not considered to be appropriate to effectively mitigate cumulative impacts.</p> <p>The final paragraph of Section 21.5 states that ARTC can only reasonably be responsible for managing the contributions of its activities to regional cumulative impacts. This is an incorrect statement as the proponent will be responsible for significant local impacts during the construction and operational phases of the proposed project. Impacts such as noise, dust, vibration, traffic, workforce, etc. all have very local implications.</p>	<p>The requirement of the TOR is to assess cumulative impacts in combination with impacts created by the activities of other local, upstream and downstream land uses. By definition, this includes current land uses (such as agriculture and grazing which are the dominant land uses), however the Draft EIS addresses only existing and proposed infrastructure, industrial, intensive agriculture and resource projects which are relatively minor land uses. This is a major shortcoming of the Draft EIS as there is no consideration of cumulative environmental impact between the project and the dominant existing land uses that already occur along the alignment.</p> <p>The cumulative impacts assessed in the Draft EIS are not considered to be robust or inclusive, as required by TOR 7.3. Therefore, Chapter 21 does not present a true and accurate assessment of the cumulative impacts of the project. Chapter 21 needs to be revised to include assessment of cumulative impacts associated with the dominant existing land uses and not only minor land uses.</p> <p>The Draft EIS requires a commitment that the proponent and its subcontractor will liaise directly with proponents of other projects to ensure cumulative impacts can be mitigated in a collaborative manner.</p> <p>The final paragraph of Section 21.5 needs to be updated to recognise the local impacts of the construction and operational phases of the proposed project. The proponent is responsible for these and needs to liaise directly with proponents of other relevant projects to manage these local cumulative impacts.</p>	<p>Chapter 23: Cumulative Impacts, Section 23.3 states that it is recognised that the Project may contribute to cumulative impacts to land use and tenure, as the development of agricultural land cannot be fully mitigated or replaced in a like-for-like manner; however, the Project is consistent with the State land-use planning expectations for the area, having endeavoured to minimise potential land-use impacts through a rigorous route and alignment selection process. Overall, the significance of potential cumulative impacts is considered to be low and with identified mitigation measures applied, the residual land use and tenure impacts of the Project are expected to remain low both at a regional and State level.</p> <p>Table 23-9 identifies the following in respect to agricultural and cropping land:</p> <ul style="list-style-type: none"> Potential cumulative impacts will be managed through: <ul style="list-style-type: none"> Refining the reference design during detailed design to minimise the Project footprint to the extent required for the construction works and safe operation of the Project Rehabilitation of land that is temporarily disturbed in support of construction activities (e.g. for access tracks, laydown areas, etc.) at the end of its use for construction, unless otherwise agreed with the relevant landowner The development of individual property treatments in consultation with landowners/occupants, with respect to the management of cumulative construction activities on, or immediately adjacent to, private properties. These will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required. ARTC to ensure that construction contract documentation for adjoining projects have consistent clauses regarding the monitoring and defect correction for revegetated and rehabilitated areas, particularly in areas designated as Class A and Class B agricultural land or within an IAA. Requiring all site personnel to adhere to ARTC land access protocols and procedures and property agreements when entering private properties adjacent to the Project footprint. Will develop and implement: <ul style="list-style-type: none"> A Rehabilitation and Landscaping Management Plan, as a component of the Construction Environmental Management Plan (CEMP) for the Project, which is compatible with adjoining activities and addresses cumulative impacts to agricultural land. 	Chapter 23: Cumulative Impacts Section 23.3 Table 23-9
218	218.0082	Local Government	Land Use and Tenure	Proponent commitments	<p>Land use impacts: The Draft EIS states that the assessment of potential impacts to land use and tenure has been undertaken using the methodology detailed in Section 7.4.2 and illustrated in Figure 7.2. Land uses have been based on the Queensland Land Use Mapping Program (QLUMP) and verification of these land uses was undertaken by means of a project footprint drive-through undertaken on 15 August 2018 to 16 August 2018, combined with consultation feedback.</p>	<p>The Draft EIS should be amended to include a commitment to complete a new assessment prior to the commencement of construction activities to ensure that there have been no land use changes which may impact negatively on either the proposed rail or existing landowners (such as the erection of large ring tanks, fencing or other developments that do not require approvals).</p>	<p>The revised draft EIS Chapter 8: Land Use and Tenure, presents updated information on the Project with regards to land-use assessment, identification and mapping existing land uses.</p> <p>Land use impacts to properties and lots described in Section 8.5.1 of Chapter 8: Land Use and Tenure where indirect impacts may be experienced, will be confirmed through the detailed design and property acquisition process. Where land use impacts are confirmed, individual property management measures will be developed in consultation with the landowner to reduce impacts to an acceptable and agreeable level. Management measures will include:</p> <ul style="list-style-type: none"> Individual property mitigation measures developed in consultation with landowners/occupants with respect to the development of detailed design and/or the management of construction on, or immediately adjacent to, private properties. The property mitigation measures will detail required adjustments to fencing, access, farm infrastructure, and relocation of any impacted structures, as required. Consultation with landowners will be undertaken to ensure that owners and occupiers are informed about the timing and scope of activities in their area, particularly in relation to potential impacts to access, services, or farm operational arrangements. This consultation will be ongoing throughout construction. Feedback from landowner consultation, including agreed property mitigation measures, will be incorporated into property agreements (or similar), as appropriate. 	Chapter 8: Land Use and Tenure Section 8.5.1
218	218.0083	Local Government	Project scope	Mitigation measures	<p>Utility impacts: Section 7.5.2.7 discusses the presence of high-risk gas pipelines in the proposed project footprint. Further, Table 7.38 identifies actions for utility relocation/protection during proposed project activities. There is however no reference made in the Draft EIS relating to TRC assets or the mitigation measures already agreed between the proponents Inland Rail Utility Group and TRC during consultation sessions.</p>	<p>The Draft EIS requires updating to include details relating asset replacement relocation.</p> <p>TRC requests the OCG impose the following condition:</p> <p>The proponent is required to consult with TRC regarding the relocation of TRC utilities including, but not limited to, who will relocate utilities, when they will be relocated, how they will be relocated, and who will be responsible for the cost of relocation, and to reach written agreement with TRC in relation to these aspects at least six months prior to the commencement of any construction activities.</p> <p>ARTC will continue consultation with key stakeholders including TRC and utility owners into the Detailed Design stage. In accordance with Appendix E: Consultation Report, Section 7.2, a Communication and Stakeholder Engagement Management Plan will be developed and include measures to address engagement with TRC and GRC on the schedule, progress, potential impacts and mitigation measures for the Project, and the development of partnerships to maximise social opportunities.</p> <p>Appendix B4: Utilities contains the design drawings and details of the proposed utilities interactions and proposed mitigation measures.</p>	<p>ARTC has consulted with TRC extensively on these proposed changes, all of which have been endorsed in technical officer forums. Chapter 8: Land Use and Tenure, Section 8.3.2 identifies that consultation with utility service providers has included consultation with Toowoomba Regional Council.</p> <p>Section 8.5.1 identifies that details of consultation to support development of the revised reference design and revised draft EIS are included in Appendix E: Consultation Report. This includes consultation with Toowoomba Regional Council regarding utility impacts. Utilities/engineering infrastructure consultation is reported in Appendix E: Consultation Report, Section 5.13 and Table E-59.</p> <p>Further improvement of the vertical alignment may be conducted during design development within Inland Rail engineering standards, which will require further consultation with stakeholders and EIS change management processes where necessary.</p> <p>ARTC will continue consultation with key stakeholders including TRC and utility owners into the Detailed Design stage. In accordance with Appendix E: Consultation Report, Section 7.2, a Communication and Stakeholder Engagement Management Plan will be developed and include measures to address engagement with TRC and GRC on the schedule, progress, potential impacts and mitigation measures for the Project, and the development of partnerships to maximise social opportunities.</p> <p>Appendix B4: Utilities contains the design drawings and details of the proposed utilities interactions and proposed mitigation measures.</p>	Chapter 8: Land Use and Tenure Section 8.3.2 Section 8.5.1 Appendix B4: Utilities Sheets 1 - 73 Appendix E: Consultation Report Section 5.13 Table E-59 Section 7.2
218	218.0084	Local Government	Editorial		<p>Land use and tenure cumulative impacts: Table 7.41 of the Draft EIS provides an assessment of land use and tenure cumulative impacts and references temporary disruptions to services and utilities resulting from the InterLinkSQ project.</p>	<p>The Draft EIS requires update to consider aspects and factors in relation to the relocation of utilities as these impacts could be considered to be higher than "low".</p>	<p>As stated in Chapter 8: Land Use and Tenure, Table 8-51, ARTC will liaise with the relevant parties to establish a shared understanding of the utility and service requirements for each of the two Projects during construction, operation and maintenance. This information sharing will be used to inform the optimal timing of temporary service disruptions and realignment/relocation of services, if either is required.</p> <p>This information sharing will also be used to inform property owners, occupants and businesses in advance of the timing and scope of disruptions to services and utilities in their area.</p> <p>Therefore the impact significance is assessed as low.</p>	Chapter 8: Land Use and Tenure Table 8-51
218	218.0085	Local Government	Surface Water	Water quality	<p>Soil Salinity: Chapter 8, Section 8.5.3.6 includes a soil salinity hazard assessment for the project. It describes that each sub-catchment is considered to have either a moderate or a high hazard rating.</p> <p>Chapter 8, Section 8.6.7 describes that project activities have the potential to cause secondary salinization. It also lists various management measures that are expected to reduce the risk of secondary salinization. One control is managing the quality of construction water, which refers to the use of non-sodic water.</p> <p>Chapter 5 Section 5.4.20.1 describes that most water will be used for conditioning fill, haul road and laydown pad maintenance and dust suppression. Based on this description it was assumed that water demand for revegetation is relatively minor by comparison.</p> <p>Chapter 22 Table 22.4 specifies that water for landscaping and revegetation should meet irrigation water quality guidelines. However, it provides no requirements for construction water quality which will be the most significant risk for secondary salinity with respect to surface application of water.</p> <p>Furthermore, Chapter 5 Table 5.38 provides no specific water quality criteria for earthworks or track works.</p> <p>Furthermore, the salinity hazard does not consider the potential impacts of deep cuts (up to 20 m) on salinity hazard.</p> <p>TOR 11.93 is not met by the Draft EIS as it does not provide clear guidance or mitigation measures for mitigating secondary salinity risks to soil.</p>	<p>Update the Draft EIS to include:</p> <ul style="list-style-type: none"> Water quality criteria for construction water to minimise risks of secondary salinity. Consideration of the potential of deep cuts on salinity risk and any associated mitigation measures. 	<p>Construction water quality</p> <p>Chapter 5: Project Description, Section 5.6.24 details, non-potable water will be used for earthworks, track works and revegetation activities. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements. Section 440ZG of the Environmental Protection Act requires that a person must not unlawfully deposit a prescribed water contaminant:</p> <ul style="list-style-type: none"> In waters In a roadside gutter or stormwater drainage At another place, and in a way, so that the contaminant could reasonably be expected to wash, blow, fall or otherwise move into waters, a roadside gutter or stormwater drainage. <p>Therefore, water used for earthworks, track works and revegetation activities will be of a quality that is:</p> <ul style="list-style-type: none"> Non-deleterious to earth fill properties Consistent with the quality requirements specified for irrigation and general water use in the <i>Australia and New Zealand Guidelines for Fresh and Marine Water Quality 2018</i> <p>Groundwater salinity & seepage</p> <p>Within the Border Rivers catchment, previous salinity risk assessment identified the use of saline groundwater for land irrigation, leaking dams, and dissolution of salts as the most common secondary salinity sources. Despite the need for greater research regarding secondary salinity formation and the impact of salinity on infrastructure assets, the risk assessment concluded salinity in the region will have a low risk to rail infrastructure (Biggs et al. , 2010b) (Chapter 15: Groundwater, Section 15.5.5).</p> <p>Through the Condamine Catchment, the groundwater impact assessment area intersected sub-catchments considered to contain a very-low-to-high overall salinity risk. The Millmerran area was considered to have a very low to low risk of secondary salinity, while the Pittsworth and Gowrie areas were considered to have moderate risk. An area of high salinity risk intersects the groundwater impact assessment area near Southbrook and presents a 'current threat, through salinity, to infrastructure assets in the area (Searle et al. , 2007) (Chapter 15: Groundwater, Section 15.5.5).</p> <p>The predictive modelling results for seepage within deep cuts are presented in Section 15.6.2 of Chapter 15: Groundwater and provide estimates for the entire length of each modelled cut, with rates provided for typical conditions and wet conditions (following periods of high rainfall recharge). These predictive simulations indicate:</p> <ul style="list-style-type: none"> Seepage is concentrated at the bottom of the cuts, on both sides of infill material Temporary y increases in seepage may be observed in cuts with sandy soil or weathered sandstone following rainfall events Seepage of groundwater from bedrock is anticipated to be low except where it may be enhanced by weathering of fractures. <p>Seepage control measures will be adopted in accordance with QR Civil Engineering Standard QR-CTS-Part 35 – Stone and Concrete Slope Protection (Chapter 15: Groundwater Section 15.7.1 and Table 15-20). In accordance with the QR Civil Engineering Standard, exposed cut faces will be lightly compacted prior installation of strip drains and application of a 300 mm drainage blanket of granular material around weep or drain hole locations. Weepholes are installed in two rows along the cut face, one at 600 mm above the cut base and one at mid-height of the cut face. Drain hole specifications will be developed as part of the Detailed Design stage on a cut-by-cut basis. Cut faces will then be finished with stone pitching, interlocking blockwork, or concrete. Groundwater seepage and rainfall infiltration will be channelled from the cut face via the drain and weepholes to the base of the cut, where will dissipate via longitudinal drains, transpiration or infiltration and recharge.</p>	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.5.5 Section 15.6.2 Section 15.7.1 Table 15-20 Appendix B5: Construction Water Requirements

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0086	Local Government	Project alignment	Severance of agricultural land	<p>Agricultural land requirements: The Draft EIS proposes large sections of the proposed alignment through agricultural land. When assessing and planning any impacts, the avoid, minimise and mitigate framework should be applied.</p> <p>The sections of the proposed alignment that do not utilise existing road (or rail) corridors should have their alignment reconsidered, particularly in areas where existing road corridors are located nearby. This is not just about reducing impacts to Class A and B Agricultural Land, but also the appropriate consideration of landowners and the viability and efficiency of future farming operations.</p> <p>Table 8.22, which compares the amount of agricultural land proposed to be sterilised as a result of the proposed current alignment to the total area in the LGA, gives a biased point of view by attempting to indicate that there will be little to no impact to agricultural land as a result of the current proposed alignment.</p>	<p>The current proposed alignment should be amended to better utilise existing linear infrastructure corridors to avoid and minimise impacts to agricultural land and farming operations. This will effectively reduce the amount of Class A and B agricultural land currently proposed to be made sterile by the proposed project and in turn, improve the proponents relationship with potentially affected landowners. Re-alignment now is considered more favourable than attempting to mitigate impacts in the future.</p> <p>The Draft EIS requires update to review the alignment to avoid and minimise impacts of Class A and B Agricultural Land. The alignment should prioritise co-location in existing linear infrastructure reserves, minimise the total disturbance footprint and minimise impacts that will reduce the viability future farming operations and efficiencies. The revised Draft EIS must include transparent reasoning for the alignment selection where it is deemed necessary to impact on Class A or B Agricultural Land.</p>	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres (m) of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>As described in Chapter 18: Economics, Section 18.9.1, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. Productive agricultural land to be sterilised has been quantified in Chapter 8: Land Use and Tenure, Section 8.5.1. At a local government level, within Goondwindi, the permanent disturbance footprint traverses;</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.02 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and, 0.19 per cent of IAA land <p>Overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. Chapter 18: Economics, Table 18-11, summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts. Further details are provided in Chapter 8: Land Use and Tenure.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent 	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Figure 2.14 Figure 2.15 Chapter 8: Land Use and Tenure Section 8.5.1 Chapter 18: Economics Section 18.9.1 Appendix E: Consultation Report Section 5.1</p>
218	218.0088	Local Government	Landscape and Visual Amenity		<p>Lighting impacts on visual amenity: TOR 5.4 requires that the EIS is to be generally in accordance with relevant policies, standards and guidelines.</p> <p>The Draft EIS does not meet TOR 5.4 regarding standards and guidelines relevant to lighting impacts and potential mitigation measures as the Draft EIS contains an outdated reference to Australian Standard (AS) 4282:2019 Control of Obtrusive Effects of Outdoor Lighting. Significant changes have been made to this document that are relevant to the proposed project (including changes to the classification of environmental sensitive areas). Furthermore, there are additional guidelines the draft EIS should include as relevant to lighting impacts and mitigation measures, namely:</p> <ul style="list-style-type: none"> National Light Pollution Guidelines for Wildlife (2020); Commission in Illumination (CIE) 126-1997 Guidelines for minimising sky glow; AS/NZS 1680.5:2012 Interior and workplace lighting, Part 5 Outdoor workplace lighting; and Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring (Department of Planning and Environment, 2016). <p>For reference purposes, further detail on an assessing and mitigating visual impacts on observatories can be found in the Inland Rail EIS, Narromine to Narrabri Technical Report 12 Landscape and Visual Assessment.</p> <p>The Draft EIS should recognise the international significance of the Mount Kent Observatory, and provide mitigation measures to ensure that the astronomical observational capabilities of the Observatory are not adversely impacted to the satisfaction of the University of Southern Queensland and its astronomical partners.</p>	<p>It is suggested that the Draft EIS be amended to meet the requirements of the related TORs and include further detail on the nearby townships and urban centres be clearly listed to identify the difference in magnitude between existing nearby sources of artificial light at night and the possible contribution from the proposed project. This would include tabulating the population and distance to townships (which gives an indication of the relative and cumulative impact of sky glow currently in the area).</p> <p>The response to this stakeholder concern would be further served by including reference to CIE 126-1997 Guidelines for minimising sky glow, AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting, and practical measures described in the Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring (Department of Planning and Environment, 2016).</p> <p>Mitigation measures providing quantified measures/guidance for outdoor lighting, particularly during construction would be more appropriate in responding to this concern.</p> <p>For reference purposes, further detail on an assessing and mitigating visual impacts on observatories can be found in the Inland Rail EIS, Narromine to Narrabri Technical Report 12 Landscape and Visual Assessment.</p> <p>The Draft EIS should recognise the international significance of the Mount Kent Observatory, and provide mitigation measures to ensure that the astronomical observational capabilities of the Observatory are not adversely impacted to the satisfaction of the University of Southern Queensland and its astronomical partners.</p>	<p>The lighting impact assessment within the Landscape and Visual Impact Assessment (LVIA) report (refer Appendix K: Landscape and Visual Impact Assessment) has been updated. A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>Based on consultation undertaken by ARTC with the Mt Kent Observatory, it is understood that there are no concerns regarding lighting impacts associated with the Project due to the distance of the observatory from proposed infrastructure. Lighting proposed is all essential for safety and the current mitigation measures incorporated in the report already include to keep this to the minimum required standards. Details regarding these consultations are detailed in Table E-21, 5.12.8 of Appendix E: Consultation Report.</p> <p>In addition, it is noted that there are many other more significant existing light sources closer to the observatory such as public roads with street lighting and car headlights, residential properties as well as temporal impacts associated with agricultural vehicles working in the fields at night. Substantial light sources that are located closer, or equally distant to the observatory are detailed in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. These other light sources include:</p> <ul style="list-style-type: none"> The presence of existing townships in close proximity to the observatory with the potential for night-time lighting, including the settlements of Greenmount, Nobby and Cambooya (approximately 4.5 km, 7.5 km and 9.0 km from the observatory respectively) and other townships located further from the observatory, including Pittsworth and Southbrook Proximity to Toowoomba urban area (approximately 22 km to southwestern outskirts) Presence of the existing South Western System railway (which facilitates freight movements), approximately 4.5 km from the observatory The Gore Highway is located between the Project and the Mt Kent Observatory <p>ARTC has discussed the Project with the Observatory and made a commitment to consult further at later stages of the Project.</p>	<p>Appendix E: Consultation Report Table E-21 Section 5.12.8 Appendix K: Landscape and Visual Impact Assessment Section 4.10 Section 9 Section 9.2 Section 11.2 Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0089	Local Government	Landscape and Visual Amenity		<p>Sky glow, Mt Kent Observatory: TOR 11.21(b) states that 'matters of interest should include: any public consultation activities undertaken and their outcomes.'</p> <p>Chapter 9, Section 9.4.3.3 of the draft EIS states the concern raised through stakeholder engagement regarding the impact of lighting from construction and operation of the Project on the operation of USQ's Mt Kent Observatory, located approximately 21 km southeast from the Project (at Southbrook).</p> <p>The Draft EIS does not meet TOR 11.21(b) as it does not provide adequate response (outcomes) to the concerns raised by stakeholders during public consultation.</p> <p>In response to the concerns raised regarding the environmental impacts of light at night from the proposed project on USQ's Mt Kent Observatory, the Draft EIS lists several points to explain why the potential impact does not require assessment.</p> <p>The first (bulleted) point cites the substantial distance between proposed project and the observatory – however, this distance (approximately 21 km) is significant in the context of assessment of artificial light at night's contribution to sky glow. Therefore, this point on distance does not nullify the need for a response on this concern – and should be omitted.</p> <p>The second point, regarding the relatively brief temporal nature of the light disturbance during construction and operation is valid and useful and are therefore a constructive basis on which to respond to this concern.</p> <p>The third point regarding the other existing light sources near the observatory is valid, but, due to the cumulative nature of skyglow sources, the assessment requires additional information to clearly respond to the stakeholders' concerns and recommendation of mitigation measures produced for other observatories.</p> <p>The Draft EIS does not adequately describe the potential for impact on all land uses during construction and operation of the project as required by TOR 11.72.</p>	<p>It is suggested that the Draft EIS be amended to meet the requirements of the related TORs and include further detail on the nearby townships and urban centres be clearly listed to identify the difference in magnitude between existing nearby sources of artificial light at night and the possible contribution from the proposed project. This would include tabulating the population and distance to townships (which gives an indication of the relative and cumulative impact of sky glow currently in the area).</p> <p>The response to this stakeholder concern would be further served by including reference to CIE 126-1997 Guidelines for minimising sky glow, AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting, and practical measures described in the Dark Sky Planning Guideline: Protecting the observing conditions at Siding Spring (Department of Planning and Environment, 2016).</p> <p>Mitigation measures providing quantified measures/guidance for outdoor lighting, particularly during construction would be more appropriate in responding to this concern.</p> <p>For reference purposes, further detail on an assessing and mitigating visual impacts on observatories can be found in the Inland Rail EIS, Narromine to Narrabri Technical Report 12 Landscape and Visual Assessment.</p> <p>The Draft EIS should recognise the international significance of the Mount Kent Observatory, and provide mitigation measures to ensure that the astronomical observational capabilities of the Observatory are not adversely impacted to the satisfaction of the University of Southern Queensland and its astronomical partners.</p>	<p>The lighting impact assessment within the Landscape and Visual Impact Assessment (LVIA) report (refer Appendix K: Landscape and Visual Impact Assessment) has been updated. A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>Based on consultation undertaken by ARTC with the Mt Kent Observatory, it is understood that there are no concerns regarding lighting impacts associated with the Project due to the distance of the observatory from proposed infrastructure. Lighting proposed is all essential for safety and the current mitigation measures incorporated in the report already include to keep this to the minimum required standards. Details regarding these consultations are detailed in Table E-21, Section 5.12.8 of Appendix E: Consultation Report.</p> <p>In addition, it is noted that there are many other more significant existing light sources closer to the observatory such as public roads with street lighting and car headlights, residential properties as well as temporal impacts associated with agricultural vehicles working in the fields at night. Substantial light sources that are located closer, or equally distant to the observatory are detailed in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. These other light sources include:</p> <ul style="list-style-type: none"> The presence of existing townships in close proximity to the observatory with the potential for night-time lighting, including the settlements of Greenmount, Nobby and Cambooya (approximately 4.5 km, 7.5 km and 9.0 km from the observatory respectively) and other townships located further from the observatory, including Pittsworth and Southbrook Proximity to Toowoomba urban area (approximately 22 km to southwestern outskirts) Presence of the existing South Western System railway (which facilitates freight movements), approximately 4.5 km from the observatory The Gore Highway is located between the Project and the Mt Kent Observatory <p>ARTC has discussed the Project with the Observatory and made a commitment to consult further at later stages of the Project.</p>	<p>Appendix E: Consultation Report Table E-21 Section 5.12.8 Appendix K: Landscape and Visual Impact Assessment Section 4.10 Section 9 Section 9.2 Section 11.2 Appendix 3: Obtrusive Lighting Assessment</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0090	Local Government	Landscape and Visual Amenity		<p>Visual amenity: TOR 11.85 requires that the Draft EIS 'Describe and illustrate the visual impact of the construction and operation of the project and views should be representative of public and private viewpoints, including places of residence, work and recreation.</p> <p>The Draft EIS does not meet TOR 11.85 as it does not address a significant visual impact of light at night to local communities in dark rural environments, which is obtrusive light (direct view of light sources).</p> <p>The lighting assessment has been carried out based on analysis of representative views. However, the most significant view impact on communities arising from light at night is arguably based on obtrusive light which requires consideration of the impact of direct view of light sources, particularly in dark rural environments.</p> <p>No consideration is made for direct view of light sources, and references to the Australian Standard for obtrusive lighting are outdated (the 1997 version used for the assessment was replaced in 2019). The 1997 edition is a guidance document whereas the 2019 edition specifies requirements.</p> <p>The latest version of AS/NZS 4282:2019 specifies requirements for obtrusive light that would be useful for this consideration. Although in general this standard does not apply to public (road) lighting, limits have been included in the 2019 edition which can be applied when specified by the relevant authority. This was done so that obtrusive light can be controlled in areas where it may be seen as a problem without the need to calculate the impact of every streetlight.</p>	<p>The Draft EIS requires update to meet the requirements of TOR 11.85.</p> <p>The lighting assessment methodology of the Draft EIS should be updated to include consideration of direct view of light sources (obtrusive light), as the most significant impact of light on communities at night.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to apply lighting limits in accordance with the latest version of AS/NZS 4282:2019 as it applies to obtrusive light.</p>	<p>The LVIA has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting, are identified in Section 6.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA) has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.10</p> <p>Section 6</p> <p>Section 9</p> <p>Section 9.2</p> <p>Section 11.2</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0091	Local Government	Hazard and Risk		<p>Hazard and risk: The 'Additional information requests from OCG' TOR objectives for Health, hazard and safety (Appendix A, p31) require that developments are to be appropriately located, designed and constructed to minimise health and safety risks to communities and individuals. The revised draft EIS does not meet the OCG objective, as it does not mention of lighting as a component of outdoor workplace safety.</p> <p>The lighting assessment does not consider lighting as a component of outdoor workplace safety.</p>	<p>The revised draft EIS requires updating to reference the relevant standard: AS/NZS 1680.5:2012 Interior and workplace lighting, Part 5 Outdoor workplace lighting, and to include a discussion of lighting as a component of outdoor workplace safety.</p>	<p>Section 21.5.2.1 of Chapter 21: Hazard and Risk has been updated to include lighting as a component of outdoor workplace safety which discusses how the Project will comply with the relevant standard AS/NZS 1680.5:2012 Interior and workplace lighting Part 5: Outdoor workplace lighting (Standards Australia/Standards New Zealand, 2012). The Australian Standard AS/CA S009 Installation requirements for customer cabling (Wiring Rules) (Communications Alliance, 2020) is also updated in Table 21-16 of Chapter 21: Hazard and Risk.</p> <p>In addition to this, an obtrusive lighting assessment has been prepared as part of the revised draft EIS (Appendix K: Landscape and Visual Impact Assessment – Appendix 3: Obtrusive Lighting Assessment). Australian New Zealand Standard, AS/NZS 4282:2019 Control of Obtrusive Effects of Outdoor Lighting has been used as a general guide, and the AS/NZS 4282:2019 criteria have been applied to this analysis of potential quantitative lighting impacts associated with the Project.</p>	<p>Chapter 21: Hazard and Risk</p> <p>Section 21.5.2.1</p> <p>Table 21-16</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0092	Local Government	Landscape and Visual Amenity		<p>Visual amenity: TOR 11.85 requires that the Draft EIS 'Describe and illustrate the visual impact of the construction and operation of the project and views should be representative of public and private viewpoints, including places of residence, work and recreation.</p> <p>The Draft EIS does not meet TOR 11.85, as it provides potentially misleading information regarding distances and sensitivity levels (Table 9.2) in its assessment of visual impact.</p> <p>Table 9.2 presents definitions of sensitivity levels for assessment aspects.</p> <p>For 'sensitivity to lighting the 'Attributes of categories provides typical distances for viewers from a light source for each sensitivity level. These will be misleading in relation to dark rural environments where the viewers dark adaptation increases the viewer sensitivity to more distant light sources, particularly if light source is in direct view.</p>	<p>The attributes provided in the Draft EIS should be revised by:</p> <ul style="list-style-type: none"> Deleting the typical distances or quality distances as examples for urban areas; and Including level of significance of direct view of light sources in dark rural environments. 	<p>The LVIA has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting, are identified in Section 6. Further context with regard to the sensitivity categories and level of significance are provided within the Section 4.8 of Appendix K: Landscape and Visual Impact Assessment.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA) has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>The EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.8</p> <p>Section 6</p> <p>Section 9</p> <p>Section 9.2</p> <p>Section 11.2</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0093	Local Government	Landscape and Visual Amenity		<p>Visual amenity: TOR 11.85 requires that the Draft EIS 'Describe and illustrate the visual impact of the construction and operation of the project and 'views should be representative of public and private viewpoints, including places of residence, work and recreation.</p> <p>The Draft EIS does not meet TOR 11.85, particularly with regard to selection of representative public and private viewpoints (including places of residence).</p> <p>Chapter 9, Section 9.5 of the Draft EIS does not include a subsection on Lighting Assessment. It is expected that sensitive viewpoints for a lighting assessment are likely to be different to those viewpoints selected for a visual assessment.</p>	<p>The Draft EIS should include a subsection on lighting assessment which identifies representative viewpoints assessing lighting impacts of the proposed project during construction and operation phases. As an example, potential sensitive viewpoints are likely to include:</p> <ul style="list-style-type: none"> Private (rural) residences adjacent to Turallin non-residential workforce accommodation; Any residences very close to active level crossings signalling; and Any residences where rail alignment and local topography facilitate interior incursion of light from rolling stock headlight (e.g., relocation of Viewpoint 20 from its current position to the residence –300 m north of this viewpoint would enable more realistic assessment of the impact to residents from operation of rolling stock). <p>The landscape and visual impact assessment provided for the Draft EIS should be reviewed and updated to ensure that the assessment of impacts and proposed mitigation measures have accurately considered the scale of the proposed infrastructure and in order to appropriately meet the requirements of TOR 11.85.</p>	<p>The LVIA has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting, are identified in Section 6.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>As described in Section 6.2.1 of Appendix K: Landscape and Visual Impact Assessment, temporary lighting impacts from night works will be associated with the non-resident workforce accommodation facilities near Yelarbon, Inglewood and Millmerran, the Turallin facility, site offices and fuel storage areas as well as construction plant and machinery where non-standard work hours are required. Temporary construction lighting may also be used at bridge laydown areas. In terms of operational lighting, the only proposed permanent lighting is associated with safety lighting associated with standard road lighting required for the Cunningham Highway Road Bridge near Yelarbon and at various controlled active level crossings.</p> <p>An assessment of each of the proposed construction facilities and miscellaneous site facilities, including qualitative lighting impacts, has also been included in the Appendix K: Landscape and Visual Impact Assessment Section 8.2 and 9.1.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.10</p> <p>Section 6</p> <p>Section 6.2.1</p> <p>Section 8.2</p> <p>Section 9</p> <p>Section 9.1</p> <p>Section 9.2</p> <p>Section 11.2</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0094	Local Government	Editorial		<p>Viewpoint 15: The Draft EIS includes photomontages indicating significant removal of remnant roadside vegetation along Ware Road. This is a poor outcome considering the limited natural vegetation in an otherwise heavily altered landscape.</p> <p>If it is the intention of the proponent to remove remnant roadside vegetation, then the requirements in TOR 5.1 are not considered to be met. If, however, the proponent does not propose to disturb native vegetation in road reserves, then it may be considered that photomontages of Viewpoint 15 fails to meet the requirements of TOR 11.85 (describe and illustrate the visual impact of the construction and operation of the project).</p> <p>Viewpoint 17: TOR 11.85 requires the Draft EIS to describe and illustrate the visual impact of the construction and operation of the project. Include major views, view sheds, outlooks, and features contributing to the amenity of the area. Such views should be representative of public and private viewpoints, including places of residence, work, and recreation.</p> <p>Comparison of several of the illustrations of the railway in the landscape, including, but not necessarily limited to, that showing the impact to Viewpoint 17 (Pittsworth-Felton Road near Pittsworth Motor Inn (VP17) which appear to indicate that the double-stacked train may not be to scale, and may indeed be shown to be approximately one-third of the actual size of the infrastructure.</p>	<p>It is in the public interest that the Draft EIS be amended to meet the requirements of the relevant TORs including commitments which will ensure the retention of any remnant native vegetation which includes trees, particularly in or near towns. Existing native vegetation provides a buffer for the proposed project and also continues to act as an established seed bank, which is important for the provision of habitat resource and wildlife refuge.</p> <p>The landscape and visual impact assessment provided for the Draft EIS should be reviewed and updated to ensure that the assessment of impacts and proposed mitigation measures have accurately considered the scale of the proposed infrastructure and in order to appropriately meet the requirements of TOR 11.85.</p>	<p>The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered.</p> <p>The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design.</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers.</p> <p>ARTC acknowledge the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community.</p> <p>As noted in Section 2.8 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations. This information sharing will also be used to inform property owners, occupants and businesses in advance of the timing and scope of disruptions to services and utilities in their area.</p> <p>With respect to retention of vegetation, only as required will vegetation be removed to allow the safe construction, operation and maintenance of the rail alignment and associated infrastructure.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Table 95</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0095		Landscape and Visual Amenity		<p>Construction impacts on visual amenity: The Land objectives provided in the OCG's TOR states that the proposed project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The draft EIS identifies the construction impacts on landscape and visual amenity to VP17 as "moderate" due to the temporary nature of the construction component. This methodology is somewhat flawed as all construction for the proposed is temporary, and therefore the highest rating given in "moderate" for this reason. It is arguable that the impact on settlements and towns will be "high" given the intrusion of plant equipment, non-resident workforce and lighting will have a higher overall intrusive impact than the operational aspects. Serious consideration should be given to the overall impacts of construction, and not minimise the impact because it is only temporary.</p>	<p>The Draft EIS has not adequately demonstrated how the impacts to the natural landscape and visual amenity will be mitigated when construction is within close proximity to settlements and towns. This information is crucial to achieving the TOR and ensuring the protection of visual amenity, community wellbeing and the natural landscape. As a result, the Draft EIS requires update to adequately address these issues and to meet the requirements of the OCG's TOR.</p>	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts.</p> <p>The LVIA assesses that the potential magnitude of effect of the Project on Viewpoint 17 (now 22) during operation is High. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers.</p> <p>An assessment of each of the proposed construction facilities and miscellaneous site facilities, including qualitative lighting impacts, has also been included in the Appendix K: Landscape and Visual Impact Assessment Section 8.2 and 9.1.</p> <p>ARTC acknowledges that construction impacts are not pleasant for communities, it is considered appropriate that typically their significance is lower than long term/permanent impacts as usually people have greater tolerance for something for a short while than something that is present for a long time. Factors other than temporary impacts of views are rightly given higher importance in terms of issues concerning route selection and design. Notwithstanding this, the Project cannot proceed without construction and it is agreed that measures to minimise the landscape and visual impacts of construction activities to the greatest practicable extent are necessary as included in Section 11.2, Table 95 to minimise the intrusion on views and amenity of the community. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p> <p>With regards to lighting impacts, the revised AS 4282 has been reviewed and all reference in the LVIA have been updated (refer Section 3 of Appendix K: Landscape and Visual Impact Assessment). A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10. The lighting impact assessment within the LVIA report has also been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Appendix K: Landscape and Visual Impact Assessment Section 9: Lighting Impact Assessment). In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>The qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p>	<p>Appendix K: Landscape and Visual Impact Assessment Section 3</p> <p>Section 4.0</p> <p>Section 4.10</p> <p>Section 8.2</p> <p>Section 9</p> <p>Section 9.1</p> <p>Section 9.2</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0095		Landscape and Visual Amenity		<p>Construction impacts on visual amenity: The Land objectives provided in the OCG's TOR states that the proposed project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The draft EIS identifies the construction impacts on landscape and visual amenity to VP17 as "moderate" due to the temporary nature of the construction component. This methodology is somewhat flawed as all construction for the proposed is temporary, and therefore the highest rating given in "moderate" for this reason. It is arguable that the impact on settlements and towns will be "high" given the intrusion of plant equipment, non-resident workforce and lighting will have a higher overall intrusive impact than the operational aspects. Serious consideration should be given to the overall impacts of construction, and not minimise the impact because it is only temporary.</p>	<p>The Draft EIS has not adequately demonstrated how the impacts to the natural landscape and visual amenity will be mitigated when construction is within close proximity to settlements and towns. This information is crucial to achieving the TOR and ensuring the protection of visual amenity, community wellbeing and the natural landscape. As a result, the Draft EIS requires update to adequately address these issues and to meet the requirements of the OCG's TOR.</p>	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts.</p> <p>The LVIA assesses that the potential magnitude of effect of the Project on Viewpoint 17 (now 22) during operation is High. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers.</p> <p>An assessment of each of the proposed construction facilities and miscellaneous site facilities, including qualitative lighting impacts, has also been included in the Appendix K: Landscape and Visual Impact Assessment Section 8.2 and 9.1.</p> <p>ARTC acknowledges that construction impacts are not pleasant for communities, it is considered appropriate that typically their significance is lower than long term/permanent impacts as usually people have greater tolerance for something for a short while than something that is present for a long time. Factors other than temporary impacts of views are rightly given higher importance in terms of issues concerning route selection and design. Notwithstanding this, the Project cannot proceed without construction and it is agreed that measures to minimise the landscape and visual impacts of construction activities to the greatest practicable extent are necessary as included in Section 11.2, Table 95 to minimise the intrusion on views and amenity of the community. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p> <p>With regards to lighting impacts, the revised AS 4282 has been reviewed and all reference in the LVIA have been updated (refer Section 3 of Appendix K: Landscape and Visual Impact Assessment). A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10. The lighting impact assessment within the LVIA report has also been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Appendix K: Landscape and Visual Impact Assessment Section 9: Lighting Impact Assessment). In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>The qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p>	<p>Appendix K: Landscape and Visual Impact Assessment Section 4.0</p> <p>Section 4.10</p> <p>Section 8.2</p> <p>Section 9</p> <p>Section 9.1</p> <p>Section 9.2</p> <p>Section 11</p> <p>Section 11.2</p> <p>Appendix 3: Obtrusive Lighting Assessment Table 95</p>
218	218.0096	Local Government	Landscape and Visual Amenity		<p>Visual amenity: TOR 11.85 requires that the Draft EIS "Describe and illustrate the visual impact of the construction and operation of the project and views should be representative of public and private viewpoints, including places of residence, work and recreation.</p> <p>The Draft EIS does not meet TOR 11.85, particularly with regard to selection of representative public and private viewpoints (including places of residence).</p> <p>Due to the lack of viewpoints selected from permanent (particularly rural) residences, the lighting assessment has not considered the potential impacts of obtrusive light from light sources in direct line of sight during night construction and operation phases (e.g., rolling stock headlight and active level crossing signalling).</p>	<p>To meet this requirement, the Draft EIS should be revised to include lighting impact assessment with consideration for obtrusive light from light sources in direct line of sight during night construction and operation phases from new viewpoints identified in the comment above.</p>	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts. The potential impacts associated with the Project, including Project lighting, are identified in Section 6.</p> <p>Private dwellings have not been directly assessed within the Landscape and Visual Impact Assessment (LVIA) (i.e. they are considered with reference to nearby public viewpoints) since isolated private views are typically afforded lower significance in LVIA. However, it is considered that an adequate number of viewpoints have been included to assess representative impacts suitable for EIS stage. As part of the Project's mitigation measures and controls, ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p> <p>Several additional viewpoints have been included in the revised draft EIS. This includes an additional viewpoint assessment and visualisation (Viewpoint 4) assessing potential impacts within Yelarbon with regards to the GrainCorp silo artwork viewing area and the potential provision of noise walls in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers. An assessment of each of the proposed construction facilities and miscellaneous site facilities has also been included in the Appendix K: Landscape and Visual Impact Assessment Sections 8.2 and 9.1.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights on representative viewpoint locations (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment). This assesses potentially affected sensitive receptors, and discusses potential impacts associated with train headlights and active level crossings.</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. In particular, the revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment for further details of Appendix K: Landscape and Visual Impact Assessment.</p>	<p>Appendix K: Landscape and Visual Impact Assessment Section 4.0</p> <p>Section 4.10</p> <p>Section 6</p> <p>Section 8.2</p> <p>Section 9</p> <p>Section 9.1</p> <p>Section 9.2</p> <p>Section 11</p> <p>Section 11.2</p> <p>Appendix 3: Obtrusive Lighting Assessment</p>
218	218.0096	Local Government	Outline EMP		<p>Establishment Period. Section 22.11.3.1 of the Draft EIS states that rehabilitation/reinstatement results in a stabilised landscape requiring minimal maintenance and as a result, fails to meet the requirements of TOR 5.1.</p> <p>Newly rehabilitated areas are highly prone to destabilisation and degradation given the lack of established vegetation. Further, the vital part of the rehabilitation process will be the regular watering of all new plants for a suitable establishment period in order to ensure survival. Rehabilitation initially requires a high level of maintenance for what could be an extended period of time (depending on conditions) and as such, these issues should be adequately addressed.</p>	<p>In order to meet the requirements of TOR 5.1, the Draft EIS should be updated to commit to a suitable Establishment Period (18-24 months min.) for new plants prior to describing the required on-going maintenance schedule.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required include an appropriate on-going maintenance schedule in the Rehabilitation and Landscaping Management Sub-plan and provide for TRC agreement at least six months prior to the commencement of any construction activities.</p>	<p>A Rehabilitation and Landscaping Management Plan will be developed as a component of the Construction Environmental Management Plan and will be further refined throughout each stage of the Project, where required. Ongoing maintenance has been included within the relevant management plans and Plans as a part of the Outline EMP (Chapter 24: Draft Outline Environmental Management Plan).</p> <p>Prior to each stage of the Project, each management plan, where relevant, will be further refined in consultation with the relevant stakeholders.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0097	Local Government	Landscape and Visual Amenity		<p>Visual amenity: The Land objectives provided in the OCGs TOR states that the proposed project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The proposed project greatly influences the setting of Pittsworth and Southbrook by introducing large-scale infrastructure (embankments and bridges) into the rural setting of the towns, thereby significantly changing the appearance and identity of the settlements.</p> <p>Of particular note in Pittsworth is the new rail alignment, deviating from the existing rail alignment which bisects the town. By creating a new alignment, the township will experience greater upheaval in terms of landscape alterations (vegetation clearing, new infrastructure, etc) which will ultimately result in a change to the visual amenity, scenic outlooks and landscapes.</p> <p>Chapter 9 identifies the operational impact of the Project on VP17 (Pittsworth-Felton Road near Pittsworth Motor Inn) as high due to the (max) 13.6m embankments, lack of screening vegetation, new bridge infrastructure and new fencing. Adding to this the potential of double-stacked trains, and the view from this area will be significantly impacted during the operation of the Project. Further, Chapter 9 does not take into account any potential 'noise barriers, which may have further impacts on the visual amenity of the areas.</p> <p>Table 9.55 and corresponding text proposes mitigation measures to reduce and manage the impact of infrastructure. The proponent must work collaboratively with TRC and the local communities (particularly in areas the Draft EIS reports as impacting visual amenity and landscapes) and develop suitable mitigation measures in consultation with the impacted region.</p> <p>Processes relating to how complaints will be managed during construction and operation phases should be made in collaboration with TRC and relevant communities/towns in the area to ensure a satisfactory process will be available to the community.</p>	<p>The Draft EIS requires revision to appropriately mitigate proposed impacts to the community as a result of the proposed project.</p> <p>TRC requests that the OCG impose the following conditions:</p> <ol style="list-style-type: none"> The proponent is required to work collaboratively with TRC and the potentially affected communities of Brookstead and Pittsworth to develop suitable mitigation measures for the proposed impacts on visual amenity and the surrounding landscape, and to reach written agreement with the Council at least six months prior to the commencement of any construction activities. The proponent is also required to develop an appropriate consultation process with TRC and the community to ensure the handling of complaints is managed appropriately by both the proponent and their contractors. 	<p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. Development of the revised reference design for the Project has progressed in parallel with the impact assessment process and the revised reference design has been slightly amended for the revised EIS, to reflect outcomes of ongoing engagement with the community and key stakeholders.</p> <p>As a consequence, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the reference design and revised EIS design as appropriate and where possible. The revised reference design has been developed in consideration of improving environmental outcomes, contributing to community wellbeing, contributing to social, economic and environmental sustainability, and mitigating impacts to the natural landscape and visual amenity. Some of the mitigation measures and controls that have been factored into the design, or otherwise implemented during the revised reference design stage for the Project are as follows:</p> <ul style="list-style-type: none"> The Project has, where possible, avoided impacts on nationally or regionally protected landscape areas such as the Wondul Range National Park and has minimised impacts on State Forests such as Whetstone State Forest by following the edge of the protected area to the greatest extent possible The Project has been intentionally aligned along the eastern boundary of the Rainbow Reserve so as to minimise the extent of encroachment into this reserve, whilst also avoiding severance impacts to agricultural lots to the east of Rainbow Reserve The Project has avoided, where possible, direct impacts on areas noted as being of regional landscape significance defined using the regional scenic amenity methodology (ShapingSEQ) The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes The alignment has been positioned to reduce the number of crossings and extent of impact on watercourses The Project footprint defined in the revised reference design has aimed to minimise vegetation clearing extents to that required to safely and efficiently construct, operate and maintain the works The alignment has avoided significant settlements to the greatest extent possible to assist in minimising visual impacts (e.g. Inglewood, Millmerran, Pittsworth) except where the alignment is within or adjacent to existing rail corridor (i.e. through Yelarbon, Pampas and Brookstead) The revised draft EIS alignment has changed to minimise impacts in the vicinity of Millmerran. <p>Furthermore, relevant mitigation measures have been included in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment to reflect the need for additional liaison during the Detailed Design stage with stakeholders including TRC and other landowners to facilitate appropriate landscape design, e.g., new street tree planting. A Rehabilitation and Landscaping Management Plan will be developed for the Project, as a component of the CEMP. This Plan will be developed in consultation with local governments and affected communities, in addition to location and lot specific reinstatement commitments. To ensure community and government inputs are considered, this Plan will be developed in consultation with local governments and affected communities, in addition to location and lot specific reinstatement commitments.</p> <p>Additional assessments on the visual impact of additional rail infrastructure have also been assessed. At the time of the original Landscape and Visual Impact Assessment (LVIA) the need for noise barriers had not been determined. The LVIA (refer Appendix K: Landscape and Visual Impact Assessment) has now been updated to recognise the potential for additional visual impacts should the conceptual noise barriers be implemented.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 2 (now 3), 15 (now 20) and 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Additional visualisations have also been provided to illustrate potential for mitigation of impacts, including new visualisations (and associated viewpoint assessments) in the vicinity of Pittsworth (refer Viewpoint 23 and Viewpoint 24) and Yelarbon (refer Viewpoint 4). (Refer to Section 8.2, Appendix K: Landscape and Visual Impact Assessment). Artist's impression showing the potential for mitigation measures in these locations to reduce the visual impact/improve visual amenity have been prepared, noting that these are indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and managers.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Section 11</p> <p>Section 11.2</p> <p>Table 95</p>
218	218.0098	Local Government	Landscape and Visual Amenity		<p>Impacts from deep cuttings and permanent spoil mounds: TOR 5.1 requires the EIS to 'ensure that all relevant environmental, social and economic impacts of the project are identified and assessed, and to recommend mitigation measures to avoid or minimise adverse impacts. The EIS should demonstrate that the project is based on sound environmental principles and practices. The Draft EIS does not meet the requirements of TOR 5.1 as Section 9.8 does not describe the impact of deep cuttings (to 20 m) to landscape amenity (environmental and social impacts) and how these impacts may be mitigated, particularly where deep cuttings are located near ridgelines and in highly visible locations.</p> <p>The Draft EIS proposes to temporarily stockpile excess material along the rail corridor and then form these stockpiles into permanent spoil mounds which are spread out to minimise height. The Draft EIS does not identify where the permanent spoil mounds will be located, and they are not mentioned or assessed as part of the visual impact assessment at Chapter 9.</p> <p>It is considered that the Draft EIS does not adequately address the landscape and visual amenity requirements of TOR 11.84 to 11.87.</p>	<p>It is in the public interest that the Draft EIS be amended to meet the requirements of TOR 5.1 and 11.84 to 11.87 including describing site specific landscape measures which will facilitate vegetated buffers at deep cuttings, and which may have the potential to compromise the visual amenity of the rural landscape. Deep cut treatments should be included in areas outside of the cut extents as well as within cut batters. The Draft EIS should specify the techniques to be adopted to cut batters (including benching and cultivation techniques to facilitate revegetation). All appropriate techniques should be investigated and adapted for specific ground conditions.</p> <p>The Draft EIS must also consider visual amenity impacts of permanent spoil mounds and associated mitigation measures.</p>	<p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. Table 95 within Section 11.2 of Appendix K: Landscape and Visual Impact Assessment of the revised draft EIS includes the following mitigation on cuttings for visual impact on rail infrastructure "Cuttings: Assess opportunities to blend cut batters into their landscape setting (e.g. considering potential for revegetation, rock pitching, etc.). Particularly with consideration to the cut near Athol (approximately Ch 189 km to Ch 190 km)". This proposed mitigation will be undertaken during the Detailed Design stage of the Project.</p> <p>Chapter 5: Project description of the revised draft EIS, has not identified the use of permanent spoil mounds to manage excess cut material. The Chapter discusses the Project's bulk earthwork volumes and states that the balancing of the cut and fill volumes may result in surplus or deficit of bulk earthworks material, depending on adjustments made during detailed design and the feasibility and success of material treatment options. Different options have been identified for surplus of bulk earthworks material including reuse of localised excess cut material within the Project. Detailed mass haul assessment will be carried out in the Detailed Design stage to assess the possibility of the following options, as per Section 5.6.16:</p> <ul style="list-style-type: none"> Use excess rock material for scour protection of embankments, bridges and culverts, if suitable Use excess material for temporary works construction, such as access roads, laydown areas etc. Construct the RMAR at rail formation Make clean, excess material available for use by other developments near the Project Rehabilitate borrow pit sites. Offsite disposal to landfill will only occur as a last resort, if the material is considered unsuitable for other uses, e.g. due to contamination reasons. <p>Included in the bulk earthworks, it is anticipated that 5 per cent of all cut material classified as spoil will be transported from the point of generation to stockpiles, via access tracks and temporary haul roads established within the rail corridor. The transportation routes for the movement of cut-and-fill material, including spoil, have been assessed in Section 4.2 Appendix AA: Traffic Impact Assessment.</p> <p>There will need to be an evaluation in each instance of the ability to revegetate e.g. reliant upon the correct substrate and balanced with land take and knock-on issues such as areas of ecological significance. This can be more adequately addressed at Detailed Design stage. Spoil from the Project will be avoided and reduced during construction and disposal of excess spoil will be done by through approved licenced facilities. Offsite disposal to landfill should only occur if the material is considered unsuitable for other uses in this hierarchy, e.g. due to geotechnical, contamination or saturation reasons Table 2.2 of revised draft EIS Appendix AB: Earthworks Strategy and Draft Soil Management Plan.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.16</p> <p>Appendix AA: Traffic Impact Assessment</p> <p>Section 4.2</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan</p> <p>Table 2.2</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11</p> <p>Section 11.2</p> <p>Table 95</p>
218	218.0099	Local Government	Landscape and Visual Amenity		<p>Potential impacts: The Land objectives provided in the OCGs TOR states that the proposed project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The Draft EIS discusses the potential short-term (borrow pits, construction, lighting, vegetation clearing, stockpiling, site offices/parking, etc.) and long-term (trains, noise barriers, bridges, embankments, cut/fill, etc.) impacts to amenity as a result of the proposed project.</p> <p>Of specific concern is the proposed noise barriers which have been identified as potentially required at Brookstead and Pittsworth. No indicative imagery has been provided by the Proponent in Table 9.6.2 with the comment that 'no indicative imagery is available for noise barriers. Locations and dimensions of any potential noise barriers will be subject to confirmation through the detail design process. However, detailed conceptual information has been provided in Chapter 14 and Appendix T about whether a barrier is required or not, yet no information relating to the impacts on amenity or landscapes have been provided in these sections.</p> <p>The visual impact of 'noise barriers, particularly on these two settlements, is of great concern to council particularly as no indication of design has been provided. SPP Liveable Communities clearly articulates that development to be designed to 'value and nurture local landscape character and the natural environment and 'maintain or enhance important cultural landscapes and areas of high scenic amenity ((3)(a) and (b)).</p> <p>The Draft EIS has not adequately demonstrated how the impacts to the natural landscape and visual amenity will be mitigated as no clear information has been provided around the noise barriers. This information is crucial to achieving the requirements of the OCGs TOR and to ensuring the protection of visual amenity, community wellbeing and the natural landscape.</p>	<p>The Draft EIS requires update to appropriately consider and commit to protecting amenity (landscape, visual, noise etc).</p> <p>Details of proposed noise barriers must be provided to council prior to the detailed design process. The severity of potential impacts on the two settlements of Brookstead and Pittsworth must be considered before this stage of the proposed project.</p> <p>TRC requests that the OCG impose the following conditions:</p> <ol style="list-style-type: none"> The proponent is required to work collaboratively with TRC and the potentially affected communities of Brookstead and Pittsworth to design appropriate noise barriers which limit both the noise and visual impact of the proposed project and to reach written agreement with the Council regarding the design of noise barriers at least six months prior to the commencement of any construction activities. The proponent is also required to develop an appropriate consultation process with TRC and the community to ensure the handling of complaints is managed appropriately by both the proponent and their contractors. 	<p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. Development of the revised reference design for the Project has progressed in parallel with the impact assessment process and the revised reference design has been slightly amended for the revised EIS, to reflect outcomes of ongoing engagement with the community and key stakeholders.</p> <p>As a consequence, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the reference design and revised EIS design as appropriate and where possible. The revised reference design has been developed in consideration of improving environmental outcomes, contributing to community wellbeing, contributing to social, economic and environmental sustainability, and mitigating impacts to the natural landscape and visual amenity. Among the mitigation measures and controls that have been factored into the design, or otherwise implemented during the revised reference design stage for the Project are as follows:</p> <ul style="list-style-type: none"> The Project has, where possible, avoided impacts on nationally or regionally protected landscape areas such as the Wondul Range National Park and has minimised impacts on State Forests such as Whetstone State Forest by following the edge of the protected area to the greatest extent possible The Project has been intentionally aligned along the eastern boundary of the Rainbow Reserve so as to minimise the extent of encroachment into this reserve, whilst also avoiding severance impacts to agricultural lots to the east of Rainbow Reserve The Project has avoided, where possible, direct impacts on areas noted as being of regional landscape significance defined using the regional scenic amenity methodology (ShapingSEQ) The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes The alignment has been positioned to reduce the number of crossings and extent of impact on watercourses The Project footprint defined in the revised reference design has aimed to minimise vegetation clearing extents to that required to safely and efficiently construct, operate and maintain the works The alignment has avoided significant settlements to the greatest extent possible to assist in minimising visual impacts (e.g. Inglewood, Millmerran, Pittsworth) except where the alignment is within or adjacent to existing rail corridor (i.e. through Yelarbon, Pampas and Brookstead) The revised draft EIS alignment has changed to minimise impacts in the vicinity of Millmerran. <p>Furthermore, relevant mitigation measures have been included in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment to reflect the need for additional liaison during the Detailed Design stage with stakeholders including TRC and other landowners to facilitate appropriate landscape design, e.g., new street tree planting. A Rehabilitation and Landscaping Management Plan will be developed for the Project, as a component of the CEMP. This Plan will be developed in consultation with local governments and affected communities, in addition to location and lot specific reinstatement commitments. To ensure community and government inputs are considered, this Plan will be developed in consultation with local governments and affected communities, in addition to location and lot specific reinstatement commitments.</p> <p>Additional assessments on the visual impact of additional rail infrastructure have also been assessed. At the time of the original Landscape and Visual Impact Assessment (LVIA) the need for noise barriers had not been determined. The LVIA (refer Appendix K: Landscape and Visual Impact Assessment) has now been updated to recognise the potential for additional visual impacts should the conceptual noise barriers be implemented.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 2 (now 3), 15 (now 20) and 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Additional visualisations have also been provided to illustrate potential for mitigation of impacts, including new visualisations (and associated viewpoint assessments) in the vicinity of Pittsworth (refer Viewpoint 23 and Viewpoint 24) and Yelarbon (refer Viewpoint 4). (Refer to Section 8.2, Appendix K: Landscape and Visual Impact Assessment). Artist's impression showing the potential for mitigation measures in these locations to reduce the visual impact/improve visual amenity have been prepared, noting that these are indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant land owners and Regional Councils.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Section 11</p> <p>Section 11.2</p> <p>Table 95</p>
218	218.0100	Local Government	Flora and Fauna		<p>Impacts to flora and fauna: The Draft EIS does not respond to TOR 11.95 'describe the likely impacts on the biodiversity and natural environmental values of affected areas arising from the construction and operation of the project' or TOR 6.2 'the assessment should cover both the short term and long term and state whether any relevant impacts are likely to be irreversible. The assessment should also discuss scenarios of unknown and unpredictable impacts,' as the identification of predicted population changes to flora and fauna has not been achieved.</p> <p>In addition, in order to fully understand proposed project impacts on biodiversity the Draft EIS has not correlated population changes to identified sustainable populations of affected flora and fauna as required by the State Planning Policy 2017/Biodiversity which states that the 'health and resilience of biodiversity is maintained or enhanced to support ecological processes.'</p>	<p>The Draft EIS should be amended to include further studies and assessment to accurately identify predicted population changes to flora and fauna populations as a result of proposed project activities. As part of this, the Draft EIS should correlate the predicted population changes with identified sustainable populations of impacted flora and fauna.</p>	<p>Further field assessments have been undertaken as part of the revised draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping, including additional assessments to quantify areas of important habitat and habitat critical to the survival of threatened species. A detailed assessment of potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Results of the additional surveys including locations and quantification of ecological values, including threatened species, are also provided in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>The impact assessment outlined in Chapter 11: Flora and Fauna includes estimations of magnitude of disturbance for environmental values and a significant residual impact assessment. These sections outline impacts to specific species, including those under the MSES and MNES guidelines.</p> <p>Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project footprint. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction, Construction Works and Operations stages.</p>	<p>Chapter 11: Flora and Fauna</p> <p>Section 11.5</p> <p>Section 11.6</p> <p>Section 11.7</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0101	Local Government	Editorial		Incorrect referencing: Table 10.3 of the Draft EIS lists previous dedicated ecological assessments and reports associated with the project but fails to reference the assessments which informed Figure 10.2. Further, the assessments provided in Table 10.3 are not clearly referenced on Figure 10.3.	The Draft EIS should be updated to clearly and appropriately reference all surveys completed to inform the document including those apparently completed by Eco Logical (05.09.16 and 30.09.16).	The revised draft EIS includes the results of completed flora and fauna investigations. The desktop assessment and field surveys in Appendix L: Terrestrial and Aquatic Ecology Technical Report and in Appendix O: Matters of National Environmental Significance Report detail all survey efforts undertaken to inform the draft EIS and revised draft EIS.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 3 Section 5 Section 6 Appendix O: Matters of National Environmental Significance Report Section 3 Section 5
218	218.0102	Local Government	Flora and Fauna	Survey effort/field investigation data	<p>Lack of commitment to avoid impacts to flora and fauna: The Draft EIS does not respond to TOR 11.27 'the EIS should describe any mitigation measures proposed to reduce the impact on the listed threatened species and ecological communities and proposed mitigation measures. Supporting evidence should be provided to demonstrate the appropriateness of mitigation measures proposed. Where the likely success of mitigation measures cannot be supported by evidence, identify contingencies in the event the mitigation is not successful.'</p> <p>The approach to be adopted when considering impacts on biodiversity is to avoid, minimise and offset. This is expressly reflected in Local, State and Federal regulatory frameworks for minimising ecological impacts from new developments. The 'avoid, minimise, offset' approach operates as a hierarchy, with avoidance and mitigation measures being the preferred and primary strategies for managing the environmental impact of a proposal. This is because avoidance and mitigation directly reduce the scale and intensity of the potential impact, whereas offsets do nothing to reduce the impact and only compensate for any residual significant impact. As is outlined in Queensland and Federal Government policy, avoidance and mitigation measures can reduce and, in some cases, remove the need for offsets if the residual impact is not significant. Offsets will not be considered until all reasonable avoidance and mitigation measures are considered, or acceptable reasons are provided as to why avoidance or mitigation of impacts is not reasonably achievable.</p> <p>Environmental Offsets: The proponent has adopted an approach which is inconsistent with the 'avoid, minimise, offset' hierarchy. Rather, the proponent's position as reflected in the Draft EIS, is that its preliminary investigations should be accepted for the purpose of determining whether to grant consent to the Draft EIS and that further investigations to scope the actual impacts will be undertaken later during the detailed design phase. The proponent states that they have incorporated the precautionary principle (10.4.7) and that they will assume for the current assessment processes that the identified ecological processes receptors are present and will carry out further investigations in this regard later.</p> <p>Example During Phase 2 of the proposal (detailed design phase post EIS), sensitive ecological receptors identified during the Draft EIS will be subject to further investigation to more accurately determine the magnitude of the proposed and significant adverse impacts upon identified ecological receptors. The specific mitigation measures will then be applied to ensure that the significance ratings of any potential impacts are classified to as low as reasonable practicable (ALARP) and the more significant adverse impacts are offset. This demonstrates a seemingly deliberate intention on the part of the proponent to avoid undertaking detailed analysis at the preliminary draft approval stage and may indicate that the proponent is avoiding the discovery of unacceptable impacts not capable of mitigation that could potentially result in a refusal of the application.</p> <p>The Draft EIS proposes a form of environmental offset for any land clearing which could be directly allocated to a specific Section of track. As a result, the Draft EIS does not recognise the preferred hierarchy for managing likely impacts as provided in TOR 6.4 that '...to: (a) avoid; (b) minimise/mitigate; and (c) offset once (a) and (b) have been applied...'</p>	<p>The Draft EIS requires amendment to further outline and clarify that commitment to the avoidance of potential impacts is the proposed projects first objective and has been extensively considered. Further surveys including on ground assessments are required to assist in the identification of core fauna and flora habitats. Minimise or mitigating options are secondary options to be employed after all avenues of avoidance have been exhausted.</p> <p>Supporting evidence should be provided to demonstrate the appropriateness of the mitigation measures proposed. Where the likely success of mitigation measures cannot be supported by evidence, the proponent should identify contingencies in the event the mitigation is not successful.</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to apply mitigation measures in accordance with the hierarchy of avoid, minimise, offset with avoidance and mitigation measures to be the preferred and primary strategies for managing the adverse environmental impact of the proposed project to ensure that there is no significant residual impact as a result of the proposed project. This should include, but not be limited to, a commitment from the proponent to ensure that the construction contractor reduce the width of the proposed rail corridor to ALARP.</p>	<p>A number of alternative routes for the Project footprint have been considered during the concept assessment stage (from early 2016 to late 2017) of the Project (Chapter 2: Project Rationale, Section 2.8 and Section 2.9). In all instances, the guiding principles of ecologically sustainable development have been factored into the assessment and selection of corridor and alignment options for the Project.</p> <p>The Project footprint has been subject to historical disturbance and clearing, with one third of the alignment length located within brownfield (areas already subject to previous development). The remaining greenfield portions of the Project footprint extend largely through areas subject to agricultural land uses. The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainage and rail maintenance access roads. Efforts to avoid and minimise the extent of impacts to ecological values through revisions to the reference design for the Project are discussed in Chapter 11: Flora and Fauna.</p> <p>In addition, further field assessments have been undertaken as part of the revised draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping. A detailed assessment on Potential Impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Results of the additional surveys including locations and quantification of ecological values, including threatened species, are also provided in the revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project footprint. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during Detailed Design, Pre-Construction Activities and Early Works stage, Construction Works and Operations stages. Species specific mitigation measures for MNES and MSES flora and fauna species are provided in Chapter 11: Flora and Fauna.</p> <p>The impact assessment summarised in Chapter 11: Flora and Fauna (and provided in detail in Appendix L: Terrestrial and Aquatic Ecology Technical Report) identifies the significant residual impacts for the Project based on the implementation of avoidance, minimisation and mitigation measures discussed above and will be offset as per the Biodiversity Offset assessment provided in Chapter 11: Flora and Fauna.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report
218	218.0103	Local Government	Flora and Fauna	Survey effort/field investigation data	<p>The Draft EIS should be updated to commit to completing further on ground studies and surveys to validate and ground truth Figures 10.8d, 10.10, 10.11 and 10.12D, and include findings in the document accordingly. A true assessment of potential impacts and the implementation of meaningful management measures can only be made if the ecological values and impacts are understood and not assumed.</p> <p>In addition, the Draft EIS should further identify mitigation strategies including, but not limited to, the provision of more fauna crossing structures at key highly biodiverse areas along the proposed route (such as between Chainage 170-200).</p>	<p>Lack of appropriate and robust ecological survey: The Draft EIS does not respond to TOR 11.27 'the EIS should describe any mitigation measures proposed to reduce the impact on the listed threatened species and ecological communities and proposed mitigation measures. Supporting evidence should be provided to demonstrate the appropriateness of mitigation measures proposed. Where the likely success of mitigation measures cannot be supported by evidence, identify contingencies in the event the mitigation is not successful.'</p> <p>Further the Draft EIS does not address TOR 5.1 'the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the project are identified and assessed, and to recommend mitigation measures to avoid or minimise adverse impacts. The EIS should demonstrate that the project is based on sound environmental principles and practices.' This is demonstrated by the proponent failing to provide mitigation measures proposed for Chainage 170-200 where highly biodiverse and sensitive environmental areas are located (as demonstrated by the number of environmental triggers/provisions (Figure 10.8d, Figure 10.10, Figure 10.11 and Figure 10.12d)).</p> <p>Chapter 10 outlines the results of the proponent's desktop assessment. Figure 10.8d indicates verified specimen backed records with four specimen records of Koalas occurring between Chainage 170 and Chainage 180. Figure 10.10 highlights the Matters of State Environmental Significance between Chainage 174-180 are various patches of MSES essential habitat. Figure 10.12D outlines various ecological corridors. The area between Chainage 170 and Chainage 180 is mapped as a BPA mapping Regional Terrestrial Ecological corridor. Figure 10.11 indicates the Koala mapping as prescribed under the Koala Conservation Plan 2017. Koala habitat is highlighted to occur between Chainage 190 and 200.</p> <p>Each of the above map references indicates the importance of the area for fauna (in particular Koalas) between Chainage 170 and 200. Despite this, the proposed Fauna Movement Strategy found at Appendix M does not outline any Fauna crossing structures between Chainage 149 and 197 (refer to Appendix M Figure 2.1d). Given the multiple environmental layers that are triggered between Chainage 170 and 200 the preliminary Fauna Crossing Structures are grossly inadequate.</p> <p>A key concern of TRC's is that if the project gains approval based on the current level of survey and assessment, it will be too late to apply avoidance and minimisation strategies later in the process as the alignment will be "locked in". This means the only form of mitigation available will be environmental offsets, which as stated earlier is the least preferred option.</p>	<p>Since the draft EIS was released for public submission ARTC has undertaken additional ecology surveys. The surveys were undertaken by Cardno (2021) and AusEcology (2022), which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods of these survey efforts and the results are available in Chapter 11: Flora and Fauna.</p> <p>A fauna connectivity strategy has also been prepared for the Project (see Appendix P: Fauna Connectivity Strategy) which identifies the location of proposed fauna crossing opportunities for species such as Koala (<i>Phascolarctos cinereus</i>). The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design stage. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design stage.</p>	Chapter 11: Flora and Fauna Appendix P: Fauna Connectivity Strategy Section 5 Section 5.10 Section 5.14

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0104	Local Government	Flora and Fauna		<p>Lack of consideration of actual impact to flora and fauna: Section 10.9 discusses the potential impacts of the proposed project on flora and fauna. However, there is no definitive statement of impacts presented throughout Chapter 10. As a result, the requirements of TOR 5.1 have not been met. Further to this, the mitigation measures provided in Section 10.10 are not presented clearly. Section 10.11 discusses mitigated impacts but there is no clear way to compare potential impacts to actual impacts and therefore assess if the proposed mitigation measures will be effective. It is also clear that more detailed flora/fauna survey work is required through the detailed design stage.</p> <p>The Chapter provides the reader with no information on actual impacts, nor does the Chapter reference other chapters where these actual impacts may be discussed. The summary in Table 10.27 notes that:</p> <ul style="list-style-type: none"> Flora species impacts 'may occur' from 10 out of the 14 different disturbance traits listed. Fauna species impacts 'may occur' from 12 out of the 14 different disturbance traits listed. TEC impacts 'may occur' from 6 out of the 14 different disturbance traits listed. 	<p>The Draft EIS requires updating to discuss potential impacts in detail, rather than relying on the current summary and commit to completing more detailed surveys prior to the commencement of proposed project activities. The Draft EIS discuss whether potential impacts were included in the risk assessment or if the Draft EIS was limited to actual impacts only (as it appears to do). The Draft EIS should include:</p> <ul style="list-style-type: none"> What flora species will be lost, how many, where along the alignment and in what densities? What fauna species will be lost, how many, where along the alignment and in what densities? How the risk assessment resulted in changes to the proposed alignment? The Multicriteria Analysis in Chapter 2 notes that Environmental Impacts are ranked at 12% of the entire risk rating for the proposed project. With such high risks of impacts noted in Table 10.27, the Draft EIS should include an overall Environmental Sensitivity score as part of the risk analysis. 	<p>Further field assessments have been undertaken as part of the revised draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping, including additional assessments to quantify areas of important habitat and habitat critical to the survival of threatened species. A detailed assessment on potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Results of the additional surveys including locations and quantification of ecological values, including threatened species, are also provided in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>The Impact Assessment outlined in Chapter 11: Flora and Fauna includes estimations of magnitude of disturbance for environmental values and a Significant residual impact assessment. These Sections outline impacts to specific species, including those under the MSES and MNES guidelines.</p> <p>Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project footprint. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during Detailed design, Pre-construction, Construction and Operational stages.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 5</p>
218	218.0105	Local Government	Flora and Fauna		<p>Unacceptable impacts to flora and fauna: Section 10.9.1 of the Draft EIS includes a very general statement that 'vegetation clearing and habitat loss are likely to occur during construction-phase activities' and fails to clearly describe impacts will occur, to what species, and where the location of these impacts will be along the proposed alignment.</p>	<p>The Draft EIS requires update to consider what flora and fauna species will be impacted by the proposed alignment and construction footprint (including, but not limited to, expected numbers and appropriate mitigation measures), including realignment of the proposed project. The Draft EIS should include details regarding where the proposed alignment or ancillary features (pads, loops, turn outs, crossings etc) were specifically moved or altered (i.e., reduced width) because of impacts on flora and/or fauna.</p>	<p>A detailed assessment of potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Some examples of identified impacts include habitat loss and degradation, displacement of threatened species, barrier/edge effects, lighting, dust, erosion, and contamination. The impact assessment outlined in Chapter 11: Flora and Fauna includes the quantified magnitude of potential impacts and a significant residual impact assessment.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7</p>
218	218.0106	Local Government	Project scope		<p>Project footprint: Section 10.9.1 of the Draft EIS notes a total project footprint of 3,203.78 ha for a 216 km rail line. There is no information on how this Figure is calculated and no Figure showing clearly labelled corridor widths.</p> <ul style="list-style-type: none"> 3,204 ha = 32,040,000 m² 32,040,000 m² = 216 km Average width = 148.3 m Table 5.4 notes a minimum corridor width of 40 m. <p>Section 10.9.1 of the Draft EIS notes 563.24 ha of remnant vegetation and 34.64 ha of regrowth proposed to be cleared. There is no discussion of different alignment options to compare which alignment may preserve greater portions of valuable and significant regional ecosystems and no breakdown of which regional ecosystems are included in these totals. Section 10.9.1 of the Draft EIS notes 563.24 ha of remnant vegetation and 34.64 ha of regrowth proposed to be cleared. There is no discussion of different alignment options to compare which alignment may preserve greater portions of valuable and significant regional ecosystems and no breakdown of which regional ecosystems are included in these totals.</p>	<p>The Draft EIS requires updating to confirm the range of widths for the proposed corridor, including the minimum, maximum and overall average widths on suitably scaled Plans. This should include clarification on how the width of the rail corridor will be designed in order to minimise disturbance and the clearing of vegetation.</p> <p>The document should aim to provide information outlining the width of the corridor through areas of environmental significance sorted by chainage location so a comparison can be made against the alignment maps and provide a discussion of how the corridor width was adjusted to minimise impacts on flora and fauna species. This should include a commitment from the proponent to ensure that the construction contractor reduce the width of the proposed rail corridor to ALARP in order to ensure that there is no significant residual impact as a result of the proposed project.</p> <p>The Draft EIS should also include a summary of all the regional ecosystems to be impacted by the proposed alignment and construction footprint by ecosystem type, area to be cleared, area to be offset/restored, and provide information relating directly to what has been done to avoid or reduce these construction and alignment impacts, including describing where the proposed alignment was specifically altered because of reduced impacts to flora and ecosystems.</p>	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.7) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <ul style="list-style-type: none"> The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie. 	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Figure 2.14 Figure 2.15 Appendix E: Consultation Report</p>
218	218.0107	Local Government	Flora and Fauna		<p>Impacts to fauna: Section 10.9.2 of the Draft EIS is vague and impacts to fauna species are not summarised. The Section provides several ways impacts to fauna may occur (physical trauma, entrapment, loss of habitat leading to indirect mortality) however there is no discussion of why the proposed alignment will lead to the least amount of fauna species injury or mortality.</p> <p>As noted in an earlier comment, the lack of proposed fencing for sections of the rail presents a risk to livestock and native fauna.</p>	<p>The Draft EIS requires updating to include a summary of all the fauna species likely to be impacted by the proposed alignment and construction footprint. This should include which species are listed as threatened or significant from a local, state or federal point of view, and confirm what has been done to avoid or reduce the proposed impacts to fauna as a result of proposed project activities. This should also illustrate where the proposed alignment was specifically altered in order to reduce potential impacts to fauna species.</p> <p>The draft EIS must consider how risks and impacts to livestock and native fauna will be managed where fencing is not utilised on floodplains.</p>	<p>Further field assessments have been undertaken as part of the revised Draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping. A detailed assessment on potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Results of the additional surveys including locations and quantification of ecological values, including threatened species, are also provided in the revised draft EIS, Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project footprint. A detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction, Construction Works and Operations stages and species specific mitigation measures for MNES and MSES flora and fauna species are provided in Chapter 11: Flora and Fauna.</p> <p>Opportunities for the provision of fauna exclusion fencing and fauna movement solutions have been identified (Appendix P: Fauna Connectivity Strategy). These include fencing strategies to guide species such as Koala to safe movement opportunities and will be refined through the detailed design process.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 Section 11.6 Section 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix P: Fauna Connectivity Strategy</p>
218	218.0108	Local Government	Land Resources		<p>Reduction of soil viability: Section 10.9.3 of the Draft EIS notes that impacts to the biological viability of soil to support plant growth may result from soil compaction, which will occur as a result of the proposed rail alignment and ancillary infrastructure such as pads, loops, turn outs, crossings etc. Further, the Section states that these would be permanent features where there will be no practical way to restore soil or promote plant growth.</p> <p>It is unclear to the reader why this issue has been raised, given the lack of solution to permanent disturbance such as this.</p> <p>Further, the Section notes that 'unmitigated potential impacts of soil compaction are generally short term and temporary'. This would only be considered to be true for areas where temporary structures, such as construction pads, lay down areas, access tracks, etc, would be constructed and then those areas appropriately rehabilitated when no longer in use.</p>	<p>The Draft EIS requires amendment to consider the following issues:</p> <ul style="list-style-type: none"> The project footprint of 3,203.78 ha should be further defined as temporary or permanent disturbance. Provide detail relating directly to how much temporary disturbance will occur above the project footprint quoted above. What is being done to offset the permanent loss of agricultural land as a result of the proposed project 	<p>A detailed soil investigation in Appendix J: Soil Assessment Report has been undertaken along the Project alignment disturbance footprint (including permanent and temporary) which will further understand the soil properties and refine existing soil mapping. Refer to Appendix J: Soil Assessment Report, Section 3.2 and Section 5.0. Findings from the detailed soil investigation have informed soil-specific management measures and will include soil viability. Refer to Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Part B (Section 3).</p> <p>Details on what type of land is impacted by both the temporary and permanent footprints, including impacts to agricultural land, and how this is being mitigated is available in Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6. The list of impacted properties has also been updated and is provided in Appendix F: Impacted Properties.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 3 Appendix F: Impacted Properties Appendix J: Soil Assessment Report Section 3.2 Section 5.0</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0109	Local Government	Flora and Fauna		Habitat fragmentation: Section 10.9.5 of the Draft EIS notes that 'most of the impact assessment area exists in a very fragmented environment but functional connectivity is retained through local linkages of remnant and regrowth vegetation'. There is no discussion of which proposed alignment provided the least fragmentation. It also seems that removal of existing linkages in fragmented vegetation is considered an acceptable outcome for the proposed project.	The Draft EIS requires amendment to include detail relating to appropriately avoiding or reducing connectivity issues to ensure that there is no significant residual impact to habitat as a result of the proposed project, including committing to changes to the proposed rail alignment in order to ensure this is achieved. This should also include detailing where the proposed alignment was specifically altered because of reduced impacts to fauna species and connectivity of habitat. The Draft EIS should be updated include the preservation of linkages and connectivity in areas of low remnant vegetation presence to preserve what little connectivity is left. This should include locating proposed offsets in areas of fragmentation may improve the overall quality of some fauna linkages and reduce edge effects in the long term.	The discussion of potential impacts to Biodiversity Corridors as a result of the Project has been updated for the revised Draft EIS. A fauna movement and fencing strategy has also been prepared for the Project (Appendix P: Fauna Connectivity Strategy) which identifies the location of proposed fauna crossing opportunities for species such as Koala and Greater Glider. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process and in the Wildlife Connectivity Plan that will be prepared. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities (Appendix P: Fauna Connectivity Strategy. These opportunities will be refined through the detailed design process and incorporated where appropriate (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report). The potential impacts to connectivity have also been assessed with respect to the Significant residual impacts guidelines in Appendix L: Terrestrial and Aquatic Ecology Technical Report and biodiversity offsets discussed in Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie.	Chapter 11: Flora and Fauna Section 11.5 Section 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 5 Section 6 Appendix P: Fauna Connectivity Strategy Section 3 Section 4 Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
218	218.0110	Local Government	Flora and Fauna		Habitat fragmentation: Section 10.9.7 and 10.9.8 of the Draft EIS notes that 'habitat fragmentation resulting from the project are considered to be long term and irreversible.' The proposed project travels through approximately 50 km of Bringally State Forest however no information is presented regarding why the proposed alignment must travel through this area of environmental sensitivity (which will effectively expose the State Forest to a doubling of edge effect and habitat fragmentation).	The Draft EIS requires update to include detail relating directly to when the proposed alignment has been amended to avoid or reduce habitat fragmentation and discuss why the edge effect and fragmentation of a State Forest is considered a good environmental outcome for the proposed project.	Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the Base Case via Wellcamp Charlton alignment as the preferred concept alignment for the Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified. The base case via Wellcamp Charlton alignment formed the centreline of a 2 km-wide study area to be progressed through ARTC's phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale of the revised draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area. ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and State government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). As described in Chapter 2: Project Rationale of the revised draft EIS, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS, Section 4), and the findings of environmental and engineering investigations. Appendix E: Consultation Report, Section 5.7 discusses the extensive consultation done regarding Bringally and Whetstone State Forests. Where the Project requires land to be acquired for the permanent footprint within a state forest, partial revocation of the state forests in accordance with the <i>Forestry Act 1959</i> (Qld) will be required to enable the future gazettal of rail corridor over the same land. This process has required extensive consultation with a range of stakeholders, to subsequently acquire the interests over the proposed state forest revocation area. The request for revocation of state forest triggers the need for an application for Protected Area Estate Revocation under the <i>Forestry Act 1959</i> (Qld) and requires a compensation ratio of 5:1 for tree removal.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix E: Consultation Report of the revised draft EIS Section 4 Section 5.7
218	218.0110	Local Government	Flora and Fauna		Habitat fragmentation: Section 10.9.7 and 10.9.8 of the Draft EIS notes that 'habitat fragmentation resulting from the project are considered to be long term and irreversible.' The proposed project travels through approximately 50 km of Bringally State Forest however no information is presented regarding why the proposed alignment must travel through this area of environmental sensitivity (which will effectively expose the State Forest to a doubling of edge effect and habitat fragmentation).	The Draft EIS requires update to include detail relating directly to when the proposed alignment has been amended to avoid or reduce habitat fragmentation and discuss why the edge effect and fragmentation of a State Forest is considered a good environmental outcome for the proposed project.	Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the Base Case via Wellcamp Charlton alignment as the preferred concept alignment for the Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified. The Base Case via Wellcamp Charlton alignment formed the centreline of a 2 km-wide study area to be progressed through ARTC's phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale of the revised draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area. ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2 km wide study area to a focused area of investigation (varying between 150 m to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). As described in Chapter 2: Project Rationale of the revised draft EIS, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS, Section 4), and the findings of environmental and engineering investigations. Appendix E: Consultation Report, Section 5.7 discusses the extensive consultation done regarding Bringally and Whetstone State Forests. Where the Project requires land to be acquired for the permanent footprint within a state forest, partial revocation of the State forests in accordance with the <i>Forestry Act 1959</i> (Qld) will be required to enable the future gazettal of rail corridor over the same land. This process has required extensive consultation with a range of stakeholders, to subsequently acquire the interests over the proposed state forest revocation area. The request for revocation of State forest triggers the need for an application for Protected Area Estate Revocation under the <i>Forestry Act 1959</i> (Qld) and requires a compensation ratio of 5:1 for tree removal.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix E: Consultation Report of the Revised Draft EIS Section 4 Section 5.7
218	218.0111	Local Government	Flora and Fauna		Artificial light impact on native fauna: Section 10.9.9 of the Draft EIS notes that artificial light sources may draw native reptiles, bats, birds and other nocturnal animals to feed to insects attracted to the light source. By default, higher order predators of these species will also frequent these areas to feed on those initial predators. This should be discussed. From information provided, it is unclear which areas will have permanently lighting installed and how much habitat will be affected. Lighting will also increase the likelihood of animal strike by vehicles, and this should be discussed.	The Draft EIS requires update to: <ul style="list-style-type: none"> Describe where the rail alignment and its ancillary features will have permanent lights installed and what area of influence these lights will have on attracting native fauna. Confirm what has been done to avoid or reduce impacts of permanent lighting on native fauna by detailing how the proposed alignment has been altered to avoid fauna habitat and what alternate measures could be included instead of permanent light sources. Explain what cumulative effects noise and lighting will have on animal populations? It is important to note that lighting may attract some native fauna species that then become susceptible to injury or death through predation or vehicle strike, but noise emissions may also force other fauna species away. The Draft EIS should consider what new species may then fill the void left by the departed species and what impacts they will have on the remaining native species. 	The discussion of potential impacts of lighting on flora and fauna has been updated in the revised draft EIS and is outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. Permanent lighting locations are outlined in Appendix K: Landscape and Visual Impact Assessment. Potential impacts and mitigations measures to reduce light spill are contained in Appendix K: Landscape and Visual Impact Assessment. Chapter 11: Flora and Fauna states that measuring light to assess its effect on wildlife is challenging and an emerging area of research and development. There is currently no globally recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species' visual systems. Some insectivorous bat species avoid lit areas, with lit edges acting as barriers to movement, decreasing the available habitat for the species and delaying emergence at night. Some other more generalist insectivorous bat species are able to tolerate light and utilise lit edges for feeding and dispersal. Qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting. Chapter 11: Flora and Fauna notes that noise associated with construction activities will be short-term in duration, and it is likely that fauna may temporarily move out of areas subject to high levels of noise (i.e. move into areas perpendicular to the alignment that contain bushland which will act to reduce noise exposure). It is expected that this avoidance behaviour will be short-term in nature and will only last for the duration of the construction activities. Operational noise may lead to some fauna species temporarily vacating/avoiding nearby habitat; however, operational noise will be temporary (occur as frequent pulses), and fauna species would be expected to return to the area once the pulse has passed. The discussion of potential impacts of noise on flora and fauna has been updated in the revised draft EIS and is outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Project impacts from noise and vibration are assessed in detail in the revised draft EIS, Chapter 16: Noise and Vibration, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Technical Report and Appendix W: Noise and Vibration Assessment – Railway Operations Technical Report.	Chapter 11: Flora and Fauna Section 11.5 Appendix K: Landscape and Visual Impact Assessment Appendix L: Terrestrial and Aquatic Ecology Technical Report Chapter 16: Noise and Vibration Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Technical Report Appendix W: Noise and Vibration Assessment – Railway Operations Technical Report
218	218.0111	Local Government	Flora and Fauna		Artificial light impact on native fauna: Section 10.9.9 of the Draft EIS notes that artificial light sources may draw native reptiles, bats, birds and other nocturnal animals to feed to insects attracted to the light source. By default, higher order predators of these species will also frequent these areas to feed on those initial predators. This should be discussed. From information provided, it is unclear which areas will have permanently lighting installed and how much habitat will be affected. Lighting will also increase the likelihood of animal strike by vehicles, and this should be discussed.	The Draft EIS requires update to: <ul style="list-style-type: none"> Describe where the rail alignment and its ancillary features will have permanent lights installed and what area of influence these lights will have on attracting native fauna. Confirm what has been done to avoid or reduce impacts of permanent lighting on native fauna by detailing how the proposed alignment has been altered to avoid fauna habitat and what alternate measures could be included instead of permanent light sources. Explain what cumulative effects noise and lighting will have on animal populations? It is important to note that lighting may attract some native fauna species that then become susceptible to injury or death through predation or vehicle strike, but noise emissions may also force other fauna species away. The Draft EIS should consider what new species may then fill the void left by the departed species and what impacts they will have on the remaining native species. 	The discussion of potential impacts of lighting on flora and fauna has been updated in the revised draft EIS and is outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. Permanent lighting locations are outlined in Appendix K: Landscape and Visual Impact Assessment, Section 9. Potential impacts and mitigations measures to reduce light spill are contained in Appendix K: Landscape and Visual Impact Assessment, Section 11.2. Chapter 11: Flora and Fauna states that measuring light to assess its effect on wildlife is challenging and an emerging area of research and development. There is currently no globally recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species' visual systems. Some insectivorous bat species avoid lit areas, with lit edges acting as barriers to movement, decreasing the available habitat for the species and delaying emergence at night. Some other more generalist insectivorous bat species are able to tolerate light and utilise lit edges for feeding and dispersal. Qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting. Chapter 11: Flora and Fauna notes that noise associated with construction activities will be short-term in duration, and it is likely that fauna may temporarily move out of areas subject to high levels of noise (i.e. move into areas perpendicular to the alignment that contain bushland which will act to reduce noise exposure). It is expected that this avoidance behaviour will be short-term in nature and will only last for the duration of the construction activities. Operational noise may lead to some fauna species temporarily vacating/avoiding nearby habitat; however, operational noise will be temporary (occur as frequent pulses), and fauna species would be expected to return to the area once the pulse has passed. The discussion of potential impacts of noise on flora and fauna has been updated in the revised draft EIS and is outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Project impacts from noise and vibration are assessed in detail in the revised draft EIS, Chapter 16: Noise and Vibration, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Technical Report and Appendix W: Noise and Vibration Assessment – Railway Operations Technical Report.	Chapter 11: Flora and Fauna Appendix K: Landscape and Visual Impact Assessment Section 9 Section 11.2 Appendix L: Terrestrial and Aquatic Ecology Technical Report
218	218.0112	Local Government	Waste and Resource Management		Litter: Section 10.9.10 of the Draft EIS notes that litter may impact on native wildlife through ingestion, increase the spread of disease as well as the potential to cause bushfire (cigarette butts). The document fails to provide figures relating to the actual amount of litter found along similar rail lines throughout rural Australia.	The Draft EIS should be updated to provide an estimate of the quantities of litter that can be expected to be found along the rail corridor and how will the corridor owner will manage litter into the future.	The revised draft EIS considers waste disposal characteristics for the region, rather than the rail corridor specifically. Table 22-2 of Chapter 22: Waste and Resource Management provides an estimate of regional waste disposal characteristics which includes 103,499 tonnes for general waste. Table 22-10 summarises the management of waste types generated by the Project which includes debris and litter as a waste type and provides management options as per the waste management hierarchy.	Chapter 22: Waste and Resource Management Table 22-2 Table 22-10
218	218.0113	Local Government	Flora and Fauna	Erosion	The Draft EIS requires update to consider where areas of environmentally sensitive habitat will be impacted as a result of changes to overland flow or increased velocity from creeks or waterway crossings. The draft EIS must consider how these changes to landscape hydrology may impact terrestrial, riparian and aquatic ecological communities.	Changes to overland flow: Section 10.9.12 of the Draft EIS notes that localised impacts from erosion and sedimentation may occur as a result of concentrated runoff from stockpile locations, near culverts and bridges, and from changes to overland flow paths.	The revised draft EIS has been updated to address potential impacts from localised erosion and sedimentation to environmentally sensitive areas including terrestrial, riparian and aquatic ecological communities. Potential impacts relating to erosion and sedimentation, hydrology, and flooding are identified in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. Proposed mitigation measures relating to the potential impacts are outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix L: Terrestrial Ecology Technical Report Sections 5 and 6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0114	Local Government	Flora and Fauna	Survey effort/field investigation data	<p>Mitigation: Mitigation measures presented in Section 10.10.1 and 10.10.2 are presented as a best guess approach that used an unquantified impact assessment process that did not measure or describe known impacts on flora and fauna species. There can therefore be no determination of the success of the proposed mitigation measures presented in these sections and it may be assumed that impacts will go unchecked and loss of flora and fauna species will be inevitable and unknown.</p> <p>The 'reference design phase' purportedly completed in parallel with the impact assessment process (Section 10.10.1) is not clearly outlined in Chapter 10.10 or 10.11. There is no discussion of where EVNT species have been identified under a current alignment or indications of where the alignment has been moved to avoid impacts.</p>	<p>The Draft EIS requires update to include potential impacts to flora and fauna which are determined through detailed site inspections and that provide definitive discussion on likely impacts, including areas of known locations of EVR flora and fauna species, numbers and distributions. Once the impacts are fully known, the Draft EIS should provide a discussion on how the proposed alignment has been altered to avoid the largest amount of environmentally sensitive areas.</p>	<p>Further field assessments have been undertaken as part of the revised Draft EIS, which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. Results of these surveys including locations and quantification of ecological values, including threatened species, is provided in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>The mitigation measures outlined in Chapter 11: Flora and Fauna have been revised with consideration of the additional ecological survey results. The Draft Fauna Management Plan (see Appendix N: Draft Fauna Management Plan) outlines performance, management and reporting requirements associated with the management of fauna throughout the Project. A Biodiversity Management Plan will be developed as part of the Construction Environmental Management Plan and will include appropriate criteria, directives and procedures. The plan will include requirements for inspections, monitoring and performance objectives, and corrective actions should the outcomes not achieve the adopted objectives.</p> <p>Chapter 11: Flora and Fauna outlines how ecological values were avoided and minimised through the development of the revised reference design.</p>	<p>Chapter 11: Flora and Fauna Section 11.5 and 11.7</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix N: Draft Fauna Management Plan</p>
218	218.0115	Local Government	Flora and Fauna		<p>Project footprint: Section 10.10.1 notes that the project footprint was restricted to that required for 'safe and efficient construction'. This is an unqualified remark not supported by any data or further information. In no way does 'safe or efficient construction' imply that environmentally sensitive areas were avoided, or that adverse impacts on the environment were minimised in order to ensure that there will be no significant residual impact as a result of the proposed project.</p>	<p>The Draft EIS requires update to confirm what has been done to avoid or reduce connectivity issues through changes to the proposed rail alignment as a result of an increased or decreased construction and operational footprint due to safety constraints. This should include a discussion of whether any considered alignment options were identified as more or less safe than others and if so, describe what caused these unsafe alignment options and posed construction risks, and whether or not these areas were in the vicinity of environmentally sensitive areas.</p> <p>The Draft EIS should also consider what flora and fauna species will be lost as a result of an increased footprint of disturbance due to the proposed focus on safety measures.</p>	<p>A number of alternative routes for the Project footprint have been considered during the concept assessment stage (from early 2016 to late 2017) of the Project (Chapter 2: Project Rationale, Section 2.9). In all instances, the guiding principles of ecologically sustainable development have been factored into the assessment and selection of corridor and alignment options for the Project.</p> <p>The Project footprint has been subject to historical disturbance and clearing, with one third of the alignment length located within brownfield (areas already subject to previous development). The remaining greenfield portions of the Project footprint extend largely through areas subject to agricultural land uses. The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainage and rail maintenance access roads.</p> <p>Revised draft EIS Chapter 11: Flora and Fauna and Appendix L: Terrestrial Ecology Technical Report provide strategies that have been used to minimise impacts through the revised reference design stage of the Project to avoid habitat for threatened species wherever possible.</p> <p>A preliminary fauna movement provision and fencing strategy has also been prepared for the Project (Appendix P: Fauna Connectivity Strategy) which identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process.</p>	<p>Chapter 2: Project Rationale Section 2.9</p> <p>Chapter 11: Flora and Fauna Appendix L: Terrestrial Ecology Technical Report Appendix P: Fauna Connectivity Strategy</p>
218	218.0116	Local Government	Surface Water		<p>Watercourse crossings: Section 10.10.1 notes that watercourse crossings and bridges have been designed to maintain aquatic fauna passage and minimise the risk of blockages and impacts to the bed, banks and environmental flow of watercourses (in accordance with DAF, 2018e).</p> <p>Table 5.1 of the Draft EIS notes that there will be:</p> <ul style="list-style-type: none"> 120 box culverts and 212 reinforced concrete pipe culverts along the alignment. 34 bridge crossings (Section 10.10.1 notes there will be 20 bridges structures over waterways). <p>The comment in the Draft EIS that all culvert crossing and all bridge crossing have been designed in accordance with DAF (2018,e) provides a very clear indication that the proposed alignment route is already decided upon and the Draft EIS process is nothing more than an exercise in approval and not alignment impact mitigation or alignment refinement. Bridges, culverts and their approaches away from high banks or avoid pylons and footings in low flow channels cannot be appropriately designed without completing detailed survey of every creek crossing and confirming maximum pier/pylon separation distances and spans.</p>	<p>The Draft EIS requires update to include detail regarding:</p> <ul style="list-style-type: none"> How many of the 323 culverts are in watercourses and how many were specifically designed in accordance with DAF (2018,e). How many of the 34 bridges are in watercourses and how many were specifically designed in accordance with DAF (2018,e). How the design of each individual bridge avoided impacts to bed, banks and environmental flow of watercourses. How often extra-long bridge spans are required so that no pylon or pier footing would be inside the high banks of the waterway. How many of the 34 bridges and 323 culverts meet the self-assessable standards for waterway barrier works and riverine protection permits. What is being done to protect the waterways during construction. Whether concrete pours will be completed inside or outside waterways. If inside, will pours occur when water is present in the waterway. What is being done to minimise impact to riparian zones during construction. What revegetation activities will occur in riparian zones following construction. 	<p>A review of the DAF Queensland Waterways for Waterway Barrier Works mapping was undertaken, identifying a total of 100 waterways for waterway barrier works that are intersected by the Project alignment (Appendix S: Surface Water Quality Technical Report, Section 4.6.2). Of the 100 waterways, several of the waterways are crossed by the Project alignment in multiple locations. The 100 waterways intersecting the original Project footprint are classified (derived from DAF mapped waterways) as follows:</p> <ul style="list-style-type: none"> The alignment intersects 66 waterways mapped as green The alignment intersects 15 waterways mapped as orange The alignment intersects 9 waterways mapped as red The alignment intersects 10 waterways mapped as purple. <p>The planned structure type at each waterway intersection is shown on the environmental drawings presented in Appendix B1: Design Drawings of the revised draft EIS.</p> <p>The level of risk relating to each waterway will be considered during detailed design of all structures located within the bankfull width of waterways, such as culverts, bridges (piers and abutments) and other potential barriers. A list of cross-drainage infrastructure points along the Project alignment is provided in Appendix S: Surface Water Technical Report. Designs will be in accordance with the factsheet, What is not a waterway barrier work? (DAF, 2017c), or accepted development requirements for operational work that is constructing or raising waterway barrier works, or under a relevant development approval.</p> <p>In-stream works will be undertaken in accordance with Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works (DAF, 2018e) for lower-risk watercourses (Appendix S: Surface Water Quality Technical Report, Section 6.2). In-stream works for higher-risk watercourses will be planned and undertaken in accordance with applicable assessment benchmarks for assessable development. Where in-stream works are developed in accordance with applicable accepted development requirements or acceptable outcomes within relevant codes, works are expected, at a minimum, to reduce increases in barriers for water movement during construction.</p>	<p>Appendix B1: Design Drawings</p> <p>Appendix S: Surface Water Quality Technical Report Section 4.6.2 Section 6.2</p>
218	218.0117	Local Government	Flora and Fauna		<p>Rather than having to redesign the culverts that are already designed to DAF (2018,e) the proponent should consider altering the proposed alignment to avoid fauna connectivity issues (a better solution which will better align with the Multicriteria Analysis shown in Figure 2.5 which is supposed to consider reductions in environmental impacts).</p>	<p>Wildlife crossings: Section 10.10.1 notes that 'opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process.' This indicates that detailed design work has not yet commenced. If this is the case, the Draft EIS should discuss how 323 culverts and 34 bridges can be designed in accordance with DAF (2018,e) if the detailed design process has not yet occurred.</p> <p>The Draft EIS also notes that watercourse crossings and bridges 'have been designed to maintain aquatic fauna passage' and minimise the risk of blockages and impacts to the bed, banks and environmental flow of watercourses.</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Transport Infrastructure Delivery manual (DTMR 2024). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete.</p> <p>The DKPMP provided specific details how ARTC propose to deal with koalas that are located within the construction footprint. Translocation of koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. The standalone Draft Fauna Management Plan (Appendix N: Draft Fauna Management Plan) outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>Regarding the proposed solution, the preferred location for the proposed Project rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. 	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS: EIS, Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species.</p> <p>Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design stage. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy)</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
218	218.0118	Local Government	Flora and Fauna		<p>Light impacts for wildlife not addressed: TOR 11.96 requires that the Draft EIS 'Describe any proposed measures to avoid, minimise or mitigate potential impacts on natural values, and enhance these values' ... 'In particular, address measures to protect or preserve any threatened or near-threatened species...'</p> <p>Section 10.9.9 highlights the potential impacts from artificial light on wildlife during the construction and operation phases of the project, including specific mention of increased susceptibility to predation; altered foraging; and changes to congregation habits and locations. However, there are no mitigation measures listed generally in Section 10.10.2 (proposed mitigation measures) or detailed specifically in Table 10.29 that would address this specific issue and as such, the Draft EIS does not meet the requirements of TOR 11.96 (as they relate to mitigation).</p>	<p>The Draft EIS requires update to include the mitigation measures required to reduce potential impacts to wildlife arising from light at night during both the construction and operation phases of the proposed project.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to apply mitigation measures to reduce potential impacts to wildlife arising from light at night in accordance with National Light Pollution Guidelines for Wildlife (January 2020). 	<p>The discussion of potential impacts of lighting on flora and fauna has been updated in the revised draft EIS and is outlined in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report. While construction lighting will be temporary, operational lighting will be long term but it will be localised to infrastructure and transient in nature with vehicle movement.</p> <p>Chapter 11: Flora and Fauna notes that measuring light to assess its effect on wildlife is challenging and an emerging area of research and development. There is currently no globally-recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species' visual systems. Some insectivorous bat species avoid lit areas, with lit edges acting as barriers to movement, decreasing the available habitat for the species and delaying emergence at night. Some other more generalist insectivorous bat species are able to tolerate light and utilise lit edges for feeding and dispersal.</p> <p>Qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting.</p> <p>Potential impacts and mitigations measures to reduce light spill are contained in Appendix K: Landscape and Visual Impact Assessment, Section 11.2. Additionally, mitigation measures for light impacts are outlined in Chapter 24: Draft Outline Environmental Management Plan which includes that the detailed design is to incorporate lighting to the minimal level required to meet operational road and rail safety requirement; attenuation measures to minimise light spillage will be assessed and incorporated into the detailed design such as selection of appropriate light fittings/shield and/or at receptor treatments; limit the potential for vertical illuminance by selecting luminaries that direct light downwards to avoid lateral glare.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix K: Landscape and Visual Impact Assessment Section 11.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0119	Local Government	Flora and Fauna	Survey effort/field investigation data	The Draft EIS should be updated after further survey work is completed to determine the true impacts to flora, fauna, and ecological communities (including regional ecosystems). This data should be collated into a simple analysis of impacts along several alignment options to determine the alignment of least environmental impact. The Draft EIS can then use the Multicriteria Analysis shown in Figure 2.5 as a tool for determining the best alignment option.	MNES, MSES: Table 10.29 of the Draft EIS includes provisions for the future survey of MNES and MSES species, with specific consideration to 'methods and sequencing of protected plant surveys, including seasonal timing...' The Draft EIS suggests approval based on a host of possible impacts will be managed by possible mitigation measures. Table 10.29 notes that at minimum, the following species may be impacted by the proposed alignment: <ul style="list-style-type: none"> 18 MNES flora species; 3 different MSES flora species; 23 MNES fauna species; 3 different MSES fauna species; 15 MNES migratory fauna species. By comparison, the New Acland Coal Project EIS confirmed that only 4 EVNT flora species and 2 fauna species would occur within the mine's footprint of disturbance (EIS Executive Summary, page 11, dsdmp.qld.gov.au/_data/assets/pdf_file/0018/33408/executive-summary.pdf) The New Acland approval has been blocked by State and Federal agencies for several years while further information had to be compiled and appealed through the court system. It is clear from Table 10.29 that a very large amount of survey work is required before the full extent of impacts are known. Only then can the full impacts be measured against a true assessment of risks from the Multicriteria Analysis shown in Figure 2.5. Without this work being completed, those approving the Draft EIS are doing so based on incomplete information and no revision of alignment based on environmental impacts.	Since the draft EIS was released for public submission ARTC has undertaken additional ecology surveys to ground-truth the Project footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the Detailed Design and Construction Works stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix A of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance. The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). As described in Section 2.8 and Section 2.9 of Chapter 2: Project Rationale, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance
218	218.0120	Local Government	Surface Water	Water quality	Surface water and ecosystem impacts: Table 10.29 of the Draft EIS notes that a Surface Water Management Sub-Plan will be prepared and include a risk management framework for the evaluation of the risks to surface water quality and ecosystems in the receiving environment. This information would be useful for assessing impacts and the adequacy of proposed mitigation measures as part of a draft EIS process, yet the evaluation has not been completed by the proponent.	The Draft EIS requires update to complete the risk management framework for surface water quality and ecosystem impacts and to determine whether the proposed alignment will change if water quality or ecosystem impacts are deemed too great. This is also required to determine the adequacy of any proposed mitigation measures.	The surface water assessment for the revised draft EIS has adopted a significance-based impact assessment method. This method has required consideration of the likely sensitivity of a receptor (e.g. the quality or resource value of surface waters) and the magnitude (e.g. intensity, duration and spatial extent) of potential impact on that receptor. In combination, the sensitivity of a receptor and the magnitude of potential impact enable the significance of a risk to be established. This approach has enabled the risks to surface water quality and ecosystems in the receiving environment to be assessed, as presented in Section 13.25.1 and Table 13-13 of Chapter 13: Surface Water. The impact assessment summary is provided in Section 13.27 of Chapter 13: Surface water. Reference to a risk management framework (as part of Surface Water Management Plan) has been removed from discussion of the Surface Water Plan in the revised draft EIS.	Chapter 13: Surface Water Section 13.25.1 Section 13.27 Table 13-13
218	218.0121	Local Government	Flora and Fauna	Monitoring	The Draft EIS requires updating to include a commitment that any Rehabilitation and Landscape Management Sub-plan will include rehabilitation success criteria and a defined and appropriate period for care and maintenance.	Rehabilitation monitoring commitment: Table 10.29 of the Draft EIS notes that a Rehabilitation and Landscape Management Sub-plan will be prepared as part of detailed design however this is not discussed in text and there is no mention regarding rehabilitation success criteria and how long a care and maintenance phase would need to be.	A Rehabilitation and Landscaping Management Plan will be developed for the Project as a component of the Construction Environmental Management Plan (CEMP). Details of the environmental outcomes, performance criteria, proposed mitigation measures, monitoring and adaptive management for this plan are contained in Chapter 24: Draft Outline Environmental Management Plan, Chapter 11: Flora and Fauna, and Appendix L: Terrestrial and Aquatic Ecology Technical Report. The plans will contain location-specific reinstatement commitments. Details regarding a Rehabilitation and Landscaping Management Plan have been included in Chapter 11: Flora and Fauna. Chapter 24: Draft Outline Environmental Management Plan outlines the Rehabilitation and Landscaping Management Plan including rehabilitation success criteria, monitoring and maintenance, and corrective actions if the outcomes of rehabilitation and/or reinstatement/stabilisation are not achieved.	Chapter 11: Flora and Fauna Section 11.6 Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 6.1
218	218.0122	Local Government	Flora and Fauna		The Draft EIS requires update to discuss Figures 2.1a to 2.1d of Appendix M in the body of the Draft EIS. Further, the Draft EIS should detail future surveys which will occur to determine if the proposed number of wildlife crossings will remain the same and on what basis would such a decision be made. Success rates for fauna movement should be included as a commitment and include appropriate performance criteria commitments for successful wildlife crossings.	Wildlife crossings: Section 10.10.2.1 (and shown in Appendix M, Figures 2.1a to 2.1d) of the Draft EIS includes information related to wildlife crossings/fauna under and overpasses. Figures shown in Appendix M are not referenced in Chapter 10, yet wildlife crossings are considered to be an integral component to mitigate fauna corridor and connectivity impacts. 6 fauna crossings are proposed in the Condamine Floodplain and 13 in Bringally State Forest. There is however no comment in the Draft EIS that this number of crossing is sufficient and there is no commitment that this will be the absolute minimum number of crossings. The Draft EIS includes non-committal statements such as 'a specific goal might be to ensure more than 90% of individuals that approach a crossing structure successfully cross it', without providing data to back this statement up.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Auseology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key document to support the revised draft EIS Appendix P: Fauna Connectivity Strategy. This document will be standalone Appendix for the revised draft EIS and was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including koalas, during both the Construction Works and Operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species. Revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingelwood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the Detailed Design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the Detailed Design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). Appendix P: Fauna Connectivity Strategy, Section 6 proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g., revegetation). These scenarios will be used to inform design workshops and community consultation at the Detailed Design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have been prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010 respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the Detailed Design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy. The overarching goals of the Fauna Connectivity Strategy (FCS) are to: <ul style="list-style-type: none"> Maintain and, where possible, enhance the cross-rail movement of fauna. Prevent the injury and mortality of fauna from train collision, especially for listed threatened wildlife species. These two goals set the broad direction and outcomes that ARTC plan to achieve by implementing the FCS, but they are not specific enough to clearly inform Detailed Design of the railway to achieve these outcomes. SMART goals (i.e., Specific, Measurable, Achievable, Relevant, Time-bound) are required to guide the development of the Strategy and enable evaluation of mitigation success after construction. The ability to set SMART goals relies on a comprehensive assessment of the ecological conditions of the Project Section of the Inland Rail Program; detailed knowledge of the likely and potential impacts of the railway on those ecological values, and the formulation of sensible and relevant targets. The 'SMART' objectives for each target species are presented in Appendix P: Fauna Connectivity Strategy, Table 2.1. - 'SMART' goals for each of the Project target species. Post construction ecological monitoring and evaluation of the on-ground implementation of the FCS will be undertaken to determine whether the SMART goals are progressively being achieved. A comprehensive Monitoring, Evaluation and Reporting Plan (MER Plan) that evaluates the use of crossing structures (i.e., rate of crossing by different species) and the effectiveness of crossing structures will be developed during phase 2 'feasibility design' of the Strategy. It is not possible to develop a specific MER Plan now because the number and type of crossing structures and other treatments has not been specified. This will be completed in the Detailed Design stage.	Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix P: Fauna Connectivity Strategy,
218	218.0123	Local Government	Flora and Fauna	Survey effort/field investigation data	The Draft EIS requires update to address the fact that further detailed ecological studies are required to effectively refine the current proposed alignment in a way which ensures impacts to environmental aspects (including, but not limited to, flora and fauna) are mitigated to ensure that there is no significant residual impact as a result of the proposed project. The Draft EIS makes it clear that the Project will rely heavily on 'possible impact mitigation' rather than avoiding areas of environmental significance or reducing the footprint of disturbance. This is not considered to be a robust enough approach for a proposed rail alignment which will significantly impact the surrounding environment if not managed appropriately.	Lack of ecological survey: Section 10.11.1 states that 'ARTC are committed to undertaking detailed ecological surveys throughout the project footprint in parallel to the development of detailed design.' All of the impacts noted in Chapter 10 are therefore assumed or indicative only, and cannot be used to determine actual impacts, and further survey work are required in order to identify these impacts. Further, there is potential for the species not included in Tables 10.32, 10.33, 10.34 and 10.35 to be found to be present, resulting in the potential for even further impacts from the proposed project. Should the proposed project be approved without being called upon to complete robust, detailed and appropriate ecological surveys, there will be no opportunity to mitigate these impacts at all other than offsets which are the least preferred option. Chapter 2 shows several corridor options, yet there is no summary of the Multicriteria Analysis shown in Figure 2.5 to indicate how identified environmental impacts changed the proposed alignment options or narrowed the options to the current proposed alignment as now presented.	Since the draft EIS was released for public submission ARTC has undertaken additional ecology surveys which ground-truthed the Project footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the Detailed Design and Construction Works stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance. The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). As described in Section 2.8 and Section 2.9 of Chapter 2: Project Rationale, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Appendix B3: Changes to reference design since draft EIS
218	218.0124	Local Government	Editorial		TEC's: Table 10.32 notes the TEC Myall Woodland and TEC Poplar Box both have the same habitat areas of 81.92 ha and same percentage disturbance of 5.02%.	It is recommended that the proponent check this data and update the Draft EIS accordingly.	Additional detailed survey efforts have been undertaken since the draft EIS. The results of these surveys have informed the update of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Sections 4 and 5 Appendix O: Matters of National Environmental Significance Report
218	218.0125	Local Government	Air Quality		Operational movements: Table 2.4 of Appendix R presents forecasted typical and peak volume of trains to be used by the Project in 2040. These projections have been used to estimate pollutant emission rates (provided in Table 5.7) from diesel combustion in locomotives. However, Section 2.3 does not make clear as to how the peak weekly movements were determined from typical weekly movements for each locomotive class.	Chapter 12 and Appendix R should be revised to include additional information on how the peak weekly train movements for 2040 were estimated.	For the purpose of developing the infrastructure for Inland Rail, ARTC developed a train plan to translate the predicted tonnage profile expected on Inland Rail from the 2015 Business Case, into an outline train number and frequency. The information was validated in the Inland Rail operation model. This train plan forms the basis for the development of a future working timetable. The daily train volumes for the various route sections have been calculated. The typical and peak weekly train volumes for the various route sections has been modelled for 2020, 2025 and 2040 by route Section between the NSW/QLD border through to the township of Gowrie. The peak train numbers represent the design capacity of the individual rail section, while the typical train numbers represent the modelled train numbers for each year. The peak train numbers have been used for operational air quality modelling and for subsequent impact assessment for the revised draft EIS. Chapter 12: Air Quality (Section 12.52) and Appendix R: Air Quality Technical Report (Section 2.3) have been revised to include this additional information on how the peak weekly train movements for 2040 were estimated.	Chapter 12: Air Quality Section 12.52 Appendix R: Air Quality Technical Report Section 2.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0126	Local Government	Air Quality		<p>Air quality background levels: For determining background concentrations, specifically for the short-term averaging particulates (i.e., 24-hour average PM10 and PM2.5 concentrations) and 24-hour average Toluene and Xylene, the 70th percentile value was considered from the available monitoring datasets.</p> <p>Using the 70th percentile value to inform background concentration for short-term averaging pollutants (i.e., 1-hour, 8-hour, 24-hour averaging periods) is an approach which is largely accepted by various regulatory agencies. Reference to the usage of the 70th percentile values for determining background concentrations can be found in regulatory guidelines such as the Brisbane City Council - Air Quality Planning Scheme Policy (AQPSP) and Vic-EPA State Environment Protection Policy (SEPP) Air Quality Management.</p> <p>Although usage of the 70th percentile values is acceptable, this approach tends at times to underestimate the background concentrations of the study area. Table 4.5 and Table 4.6 of the Air Quality Technical Report summarises the PM10 and PM2.5 statistics measured from the Inland Rail Air Quality Monitoring Station which is located at a residential dwelling off Draper Road, Charlton. The time-series for the 24-hour average PM10 concentrations measured between September 2018-August 2019 shows that there have been nine (9) exceedances of the 24-hour average ambient assessment criteria of 50 µg/m3. These exceedances are attributed to dust storms and bush fires that occurred during the monitoring period. Nine (9) exceedances of the assessment criteria over a one (1) year period would imply that the 24-hour average concentrations complied with the assessment criteria for more than 95% of the time. As such, using the 70th percentile value would underestimate the background PM10 levels which have been used in the determination of cumulative concentrations.</p> <p>On the contrary, usage of the 70th percentile concentration for determining background levels of Toluene and Xylene is deemed acceptable as the values have been referenced from the Springwood monitoring station which is situated in a very busy urban environment as opposed to the study area, which is largely a rural landscape as noted in the Terrain and Land Use Section (Section 4.4) of the Air Quality Technical Report.</p>	<p>It is recommended that the Air Quality Technical Report be revised to use the 90th percentile value from the Inland Rail AQMS be used instead of the 70th percentile for determining the background particulate (PM10 and PM2.5) concentrations as it provides a conservative picture of the local air quality levels. The use of 90th percentile value would still filter out the observations corresponding to the bush fire and dust storm activities.</p>	<p>Section 4.2 of Appendix R: Air Quality Technical Report, reports that the Brisbane City Council Air Quality Planning Scheme Policy (BCC AQPSP) (2014) is a robust technical document which is widely used throughout Qld regardless of the type of project or the rural or urban setting of the assessment area. BCC AQPSP prescribes that the 70th percentile of measured concentrations should be used for the assessment of pollutant species with short-term air quality goals. The BCC AQPSP does not prescribe the use of other percentiles (e.g.90th). In accordance with the BCC AQPSP, the 70th percentile concentration has been used as the adopted background concentration for assessment of the 24 hour average goals for PM10, PM2.5, toluene and xylene, and for the assessment of the 1 hour average goal for toluene.</p> <p>Using 90th percentile measured concentrations as background concentrations is not recommended by recognised air quality assessment technical guidance, and therefore this approach has not been adopted for the assessment.</p> <p>The Inland Rail air quality monitoring station (AQMS) is located approximately 200 metres to the south of the existing QR Western Line, and measured concentrations at the station are influenced by emissions from existing freight rail traffic operating on the Queensland Rail network. Due to the influence of freight rail emissions on measured concentrations, the Inland Rail AQMS represents a conservative estimate of background air quality (Appendix R: Air Quality Technical Report, Section 4.2).</p> <p>Particulate matter less than 10 micrometres (PM10) and particulate matter less than 2.5 micrometres (PM2.5) monitoring data from the Inland Rail AQMS has been used to define existing background concentrations for these pollutants for use in the assessment. As noted in Section 4.2 of Appendix R: Air Quality Technical Report, the 70th percentile concentrations for PM10 and PM2.5 over the monitoring dataset for the Inland Rail AQMS are higher than the 70th percentile concentrations measured at the Millmerran AQMS, which is also located within the study area near Commodore Mine. On this basis, and due to the presence of the Queensland Rail Western Line near the Inland Rail AQMS, the adopted 70th percentile 24 hour concentrations for PM10 and PM2.5 from the Inland Rail AQMS could be considered a conservative estimate of background air quality.</p> <p>The purpose of the assessment is to investigate the potential air quality impact under typical conditions. Using 90th percentile measured concentrations as background concentrations is not recommended by recognised air quality assessment technical guidance, and therefore this approach has not been adopted for the assessment. Measured 70th percentile concentrations from monitoring locations representative of the study area have been used as recommended by the Brisbane City Council Air Quality Planning Scheme Policy. The use of the 70th percentile is considered appropriate.</p>	<p>Appendix R: Air Quality Technical Report Section 4.2</p>
218	218.0127	Local Government	Air Quality	Cumulative impacts	<p>Air quality cumulative impact: Cumulative impact assessment requires assessment of all sources of emissions in the study area including emissions from the proposed project and emissions from existing and proposed sources. The existing background air quality levels (measured from the Inland Rail AQMS) are then added to the predicted impacts from these sources to estimate the cumulative impacts.</p> <p>For this Air Quality Technical Report, the other sources of emissions included in the model comprises of contributions from the Commodore Mine, Millmerran Power Station and other sections of the Inland Rail Project and the existing West Moreton system.</p> <p>Review of Appendix R identified some concerns with the methodology adopted for estimating contributions from the Commodore Mine to determine cumulative concentrations.</p> <p>Table 5.9 of the Air Quality Technical Report presents the NPI emissions estimated from the Commodore Mine from 2012-13 to 2018-19. Based on reviewing the information presented in Table 5.9, it is observed that particulate and NOx emissions from the Commodore Mine have steadily increased from 2012-13 to the most recent reporting period i.e. 2018-19. As such, usage of the 2018-19 reporting year would be more appropriate and representative as opposed to the 2016-17 year that was used in to inform Appendix R. Moreover, there is no valid information justifying the use of the 2016-17 reporting year.</p> <p>Furthermore, Appendix R states that preliminary modelling with emissions from the 2016-17 reporting year predict exceedances of the 24-hour average PM10 assessment criteria (50 g/m3) at receptor no.186, which is approximately 1.1 km north of the mine site.</p> <p>Rather than using the emissions from the 2016-17 reporting year, which predict an exceedance at receptor no.186, Appendix R further scales down the PM10 and PM2.5 emissions from the mine such that the 24-hour average PM10 concentration at receptor no.186 does not exceed the 50 µg/m3 assessment criteria. The justification provided for scaling down of the PM10 and PM2.5 emissions from the Commodore Mine is that the Environmental Authority (EA) permit issued for the mine states that all reasonable and feasible measures are to be undertaken so that the PM10 concentrations do not exceed the 50 g/m3 assessment criteria. This assumption would be considered appropriate if backed up with ambient monitoring data at receptor 186, where 24-hour average ambient PM10 concentrations are in compliance with the assessment criteria.</p> <p>The methodology proposed in Appendix R underestimates the particulate emissions from the Commodore Mine by using emissions from the 2016-17 NPI reporting year and further reduces the contribution from the mine by scaling down the 2016-17 NPI emissions such that compliance may be seen to be achieved at the worst impacted receptor for the mine (i.e. no.186).</p> <p>This approach could potentially underestimate the emission contribution from the Commodore Mine. Also, it is worth noting that particulate emissions from both the Commodore Mine and the Millmerran Power Station are unlikely to be captured by the Inland Rail Air Quality Monitoring Station due to a considerable separation distance between these sources and the monitoring station. If there is a possibility that the emissions from the mine and the power station are indeed captured by the monitoring station, there exists a plausible explanation for using slightly lower emissions from the mine and the power station due to the possibility of double counting.</p> <p>Based on the above observations, it is quite likely that the contribution from the Commodore Mine has been underpredicted for determining cumulative particulate concentrations.</p>	<p>Chapter 12 and Appendix R should be revised to incorporate the following recommendations:</p> <ul style="list-style-type: none"> Usage of the most recent NPI reporting year to estimate emissions from the Commodore Mine. Scaling down of the emissions to achieve compliance at the most impacted receptor should be avoided. Appendix R should demonstrate that if elevated background concentrations prevail, there are no additional exceedances of the 24-hour average PM10 and PM2.5 ground level concentrations occurring as a result of the proposed project. 	<p>Following the completion of the previous air quality assessment for the Project, an air quality monitoring station (AQMS) was established at 524 Millmerran Inglewood Road, Millmerran, near the Commodore Mine and Millmerran Power Station. This monitoring station is referred to as the Millmerran AQMS. Particulate matter less than 10 micrometres (PM10) and particulate matter less than 2.5 micrometres (PM2.5) air quality monitoring data from this station has been considered in the revised assessment (Chapter 12: Air Quality, Section 12.4.2).</p> <p>Monitoring data from the Millmerran AQMS indicates that PM10 and PM2.5 concentrations at the monitoring location are typically well below the air quality goals for these pollutants, the only exception being during exceptional regional air quality events (e.g. dust storms). Detailed discussion of the Millmerran AQMS monitoring data is presented in Section 4.2 in Appendix R: Air Quality Technical Report.</p> <p>The method adopted for the inclusion of emissions from the Commodore Mine and Millmerran Power Station in the assessment is presented in Section 12.33 of Chapter 12: Air Quality, and Section 5.3 of Appendix R: Air Quality Technical Report. As discussed, the revised assessment has used National Pollution Inventory (NPI) reported 2019/2020 emissions data for Commodore Mine and Millmerran Power Station. However, due to the monitoring data from the Millmerran AQMS which shows generally low level concentrations, particulate emissions from the mine have been scaled down to match measured concentrations.</p> <p>From the initial modelling (using unscaled emissions), the predicted maximum 24 hour PM10 concentration at the worst affected receptor (receptor R435, previously named R186) was in excess of 250 microgram per cubic metre (µg/m3), with over 50 exceedances of the PM10 24 hour goal of 50 µg/m3 predicted for the modelled year. Conversely, the Millmerran AQMS monitoring results showed a maximum 24 hour PM10 concentration of 49 µg/m3 from a dust storm, with concentrations mostly between 10 and 20 µg/m3. After scaling down the Commodore Mine emissions, the cumulative predicted maximum 24 hour PM10 concentration at the worst affected receptor (R435) was 42.5 µg/m3.</p> <p>Based on the monitoring data from the Millmerran AQMS, and the accepted uncertainty in the accuracy of the emissions estimation techniques for mining activities as presented in the NPI guidance documents (Section 5.3 in Appendix R: Air Quality Technical Report), scaling down 2019/2020 emissions from the mine is considered to be the most appropriate method for the assessment.</p> <p>Chapter 12: Air Quality and Appendix R: Air Quality Technical Report have been updated to reflect the updates to the assessment and to present the monitoring data from the Millmerran AQMS.</p> <p>The air quality assessment, Chapter 12: Air Quality and Appendix R: Air Quality Technical Report, have been revised to include consideration of the most recent NPI emissions data for 2019/2020 and air quality monitoring data available from the Millmerran AQMS established near the Commodore Mine and Millmerran Power Station.</p>	<p>Chapter 12: Air Quality Section 12.33 Section 12.4.2 Appendix R: Air Quality Technical Report Section 4.2 Section 5.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0128	Local Government	Air Quality	Modelling	<p>Air quality: Meteorological modelling for the proposed project was undertaken using the TAPM/CALMET models and was largely conducted in accordance with the regulatory guidelines. Three (3) CALMET domains each encompassing 87.5 km x 87.5 km with a grid resolution of 500 m were developed to simulate the meteorological conditions across the extent of the study area. CALMET modelling was conducted for the 2013 calendar year. The justification provided for selecting the 2013 calendar year was that neutral conditions were observed for this year and the remaining years between 2008-2017, were either characterised by El Nino (2015-2016 and 2009-2010) and La Nina periods (2010-2012 and 2008-2009). Using the Southern Oscillation Index (SOI), Oceanic Nino Index (NOI) and Multivariate ENSO Index for the El Nino-Southern Oscillation (ENSO), it was observed that 2013 was relatively neutral for ENSO and therefore was considered appropriate for the meteorological modelling.</p> <p>This approach is justified and the reasons for selecting the 2013 calendar year are comprehensive, however, it would be beneficial if there was additional information presented mainly from a comparative perspective, as to how the stability/mixing height parameters vary due to the prevalence of the El-Nino and La-Nina effects.</p> <p>Figure 4-3 through to Figure 4-11 presents the CALMET derived stability and mixing heights for each of the modelled CALMET domains. It would be beneficial if these parameters were simulated for a El-Nino/La-Nina year for at least one (1) modelling domain.</p>	<p>It is recommended that the Air Quality Technical Report be revised to present CALMET mixing height and stability parameters for a typical El-Nino/La-Nina year for at least one (1) CALMET modelling domain.</p>	<p>Section 5.3 in Appendix A of Appendix R: Air Quality Technical Report has been updated to present atmospheric stability and mixing height from the CALMET model for El-Nino dominant, La-Nina dominant, and neutral years. A Review of El Nino/La Nino selection year criteria showed no significant difference in mixing height or atmospheric stability between La Nina, El Nino, or neutral years. On this basis, the use of a neutral year (2013) is considered to provide a representative year for the assessment with respect to these meteorological conditions.</p>	<p>Appendix R: Air Quality Technical Report Section 5.3 of Appendix A</p>
218	218.0129	Local Government	Air Quality		<p>Livestock Odour: Chapter 12 identifies livestock trains as presenting the greatest risk of nuisance related to odour emissions. The draft EIS described associated odours as strong to very strong and the offensiveness of the odour would be unpleasant. The Draft EIS identified no significant impacts to amenity due to odour from livestock trains because:</p> <ul style="list-style-type: none"> the livestock train pass by events would only be 6 per week. no more than 1 hour duration. and residents and visitors would have a higher tolerance to intermittent odour from agricultural sources. <p>The assessment of odour impacts does not meet TOR 11.134 as the assessment of amenity impacts does not:</p> <ul style="list-style-type: none"> Adequately consider cumulative impacts of odour at receptors. If the population is already exposed to odour from local agricultural activities, what impacts may occur to amenity from adding an additional odour source? Clearly explain the frequency of source of the odour. Will the 6 livestock trains arrive over the course of 1 week or could they arrive in one day? <p>Explain the estimated duration of a livestock train pass by which may be up to 1 hour and intensity of impact compared to more common livestock transport methods such as a livestock truck. This would seem like a considerably long duration than say a livestock truck (which is understood given the length of the train). How does the scale of livestock numbers on a livestock train compare to livestock numbers on a cattle truck?</p>	<p>The air quality assessment should be revised to meet TOR 11.134 to more accurately assess the air quality amenity impacts and cumulative impacts of the project. At present, the draft EIS doesn't give due consideration of the odour source compared to more common sources such as livestock trucks. It also assumes that residents and visitors will be able to tolerate the additional and presumably more significant odour source.</p>	<p>Livestock transport is not expected along the entire Project alignment, with the transportation of livestock only expected to occur between Oakey to Gowrie, with trains only travelling loaded in one direction (northbound). A qualitative assessment of odour from livestock trains is presented in Chapter 12: Air Quality, Section 12.52.5 using FIDOL (Frequency, Intensity, Duration, Offensiveness, Location) factors.</p> <p>Based on the assessment using the FIDOL factors, it is not expected that odour impacts from livestock transport will be significant.</p> <p>The duration of odour at a sensitive location is expected to be short, with a single train representing approximately 1 minute of potential odour exposure time, for a 900 metre train travelling at an average speed of 60 kilometres per hour. Livestock trains are assumed to pass by at a maximum of once per week, which represents an exposure duration of approximately 60 seconds per week, meaning the frequency of this event is low.</p> <p>Odour impacts can be cumulative if odour emitted by multiple sources is of the same character (the same type of odour). Although intermittent agricultural odour is expected to be common to the existing ambient air environment, the potential for significant cumulative odour impacts is considered to be low due to the short duration of a train pass-by event (Chapter 12: Air Quality, Section 12.52.5).</p> <p>Odour emissions, like all pollutant emissions to air, will be dispersed subject to wind conditions occurring during their emission. Wind speed and direction have direct influence on the dispersion of emissions and the impact of odour on sensitive receptors. High wind speeds are likely to disperse emissions faster, whereas days with low windspeeds have potential for odour emissions to linger. However, the train travel will generate turbulence which will aid the dispersion of emissions, in addition to increasing the volume of air and decreasing odour concentration.</p> <p>Comparison against other existing odour sources is not required for the purpose of an odour impact assessment. It is considered that ToR 11.134 has been satisfied.</p>	<p>Chapter 12: Air Quality Section 12.52.5</p>
218	218.0130	Local Government	Air Quality		<p>Microbiological emissions to air: The Draft EIS does not meet TOR 11.131 or 11.142. This is because the air quality assessment does not give any consideration to microbiological contaminants in air emissions during operations, namely Q-fever (<i>Coxiella burnetii</i>) in dust from livestock trains. TOR 11.131 requires assessment of all contaminants and materials that may be released from the project. TOR 11.142 requires the Draft EIS to describe potential risks to people, with specific consideration to be given to airborne contaminants. The Draft EIS does not meet either of these requirements of the TOR.</p> <p>QLD Health provide extensive information about Q-fever which is summarised here (refer to worksafe.qld.gov.au/safety-and-prevention/hazards/hazardous-exposures/biological-hazards/diseases-from-animals/q-fever). Q-fever is an infectious disease spread from animals (mainly cattle, sheep and goats) to humans by a bacterial called (<i>Coxiella burnetii</i>). People become infected with Q-fever by inhaling contaminated aerosols and dusts. Sources of relevance to the project can include animal wastes (urine, faeces etc) and contaminated machinery/equipment/vehicles. The risk of infection is significant as:</p> <ul style="list-style-type: none"> Q fever is very infectious, and people can become infected from inhaling just a few bacteria. Large numbers of bacteria are shed by infected animals. The bacteria can survive in the environment for long periods, tolerate harsh conditions and spread in the air. <p>Information from the Australian Q-fever Register website (qfever.org/about/qfever/indirect-exposure) states that people may be exposed to infected dusts even if located a kilometre or more from the source. Much larger potential zones of infection are reported by various studies, ranging from 5 km to more than 10 km. Stock transport trucks are identified a source of infective dusts. Research by University of Queensland published in the BMC Infectious Diseases Journal in 2018 noted that outbreaks of Q-fever had been reported previously in Europe for residents living along roads where livestock were transported. Based on this information, the livestock trains present a health risk to receptors with regards to Q-fever and this needs to be assessed by the draft EIS.</p>	<p>The Draft EIS needs to be reviewed to meet TOR 11.131 or 11.142. More, specifically, the air quality assessment (Chapter 12) and hazard and risk assessment (Chapter 19) need to be revised and updated to include an assessment of the potential risks of Q-fever from livestock trains to human health.</p> <p>It is recommended that the proponent consult with Queensland Health in relation to the further assessment of this matter. This is to ensure that an appropriate method of assessment is used that an acceptable zone of infection (i.e., study area) is applied to adequately assess the hazards and risks to public health from the project with respect to Q-fever.</p>	<p>It is expected that risk of Q-fever infection would be lower in Australia than what is experienced in Europe as described by the referenced Qld health article. The cited article notes that infection zones from livestock transport routes can range up to over 10 kilometres. However, the paper also cites that Q-fever infection risk are due mainly from the transport of goats and sheep in Europe and that all documented outbreaks were a result of infected sheep or goats and not cattle. As cattle are the livestock that would most commonly be transported (based on Queensland total cattle and sheep numbers, 25 million and 2.1 million, respectively) it is expected that the Q-fever risk would be less than what the article references occur in Europe (Chapter 12: Air Quality, Section 12.52.6).</p> <p>Environment Protection Agency (EPA) Victoria provides guidance on planning approvals and public health risks from Q-fever (Q-Fever: Guidance for Preparing Planning Approvals, 2020). The guideline considers activities such as intensive animal production (>5,000 animals), livestock saleyards/holding pens, and abattoirs as presenting a high risk of Q-fever infection. The transport of livestock along the Border to Gowrie corridor is expected to be significantly less intensive than any of the high-risk activities, which are permanent and stationary land uses (Chapter 12: Air Quality, Section 12.52.6). It is noted that as part of the assessment of Q-fever risk, Queensland Health was consulted in 2021. Queensland Health advised that the risk of Q-fever infection from livestock trains would be "broadly similar to a road train transporting cattle" (Dr Liam Flynn, 2021). Overall, based on the guidance provided in the EPA Victoria guideline, the Project and the transport of livestock along the Inland Rail Project alignment is considered to present a low level risk of Q-fever.</p> <p>It is highlighted that livestock trains are not proposed to use the majority of the Project alignment, and will only join the Inland Rail Project alignment at Gowrie via the West Moreton System.</p> <p>Further information on the risk of Q-fever has been included within the air quality assessment (Chapter 12: Air Quality, Section 12.52.6) in the form of a qualitative risk assessment. Chapter 12: Air Quality, Section 12.52.6 provides a description of <i>Coxiella burnetii</i> (C. burnetii) bacteria, which can cause Q-Fever in humans, and provides an assessment of risk as a result of the Project.</p>	<p>Chapter 12 Air Quality Section 12.52.6</p>
218	218.0131	Local Government	Air Quality		<p>Australian drinking water guidelines: Chapter 12 refers to the Australian Drinking Water Guidelines cites the date of publication as 2011 and 2018. The guidelines were updated in May 2019.</p>	<p>Revise the air quality assessment and the consideration of tank water quality impacts to refer to the most recent update of the Australian Drinking Water Guidelines (May 2019). Ensure criteria used in the assessment are updated accordingly to reflect the most current guidance on drinking water quality.</p>	<p>The air quality impact assessment correctly uses the 2019 Australian Drinking Water Guidelines. However, the guidelines are named "Australian Drinking Water Guidelines 2011" (version 3.5), which were updated in 2018.</p> <p>Since the previous assessment, an updated version of the drinking water guidelines was released in January 2022 (version 3.7). The revised air quality assessment for the Project and described in the revised draft EIS has considered this criteria presented in the 2022 version. However, it is noted that the drinking water criteria in the 2022 version are consistent with previous versions and the criteria which was previously adopted in the assessment. Reference to the 2022 version has been included in Chapter 12: Air Quality and Appendix R: Air Quality Technical Report.</p>	<p>Chapter 12: Air Quality Appendix R: Air Quality Report</p>
218	218.0132	Local Government	Surface Water		<p>Weather stations: Figure 12.2 does not include all local weather stations, including BOM weather stations at Toowoomba Airport, Yelarbon and Goondiwindi. Toowoomba Airport is included in Table 12.10, so it is unclear why it hasn't also been included in Figure 12.2.</p>	<p>The Draft EIS requires updating to include all weather stations relevant to the proposed project in order to provide relevant and accurate data.</p>	<p>The revised draft EIS Appendix S: Surface Water Quality Technical Report has been updated to include weather station data sourced from the BOM weather stations at Toowoomba Airport and Goondiwindi in Section 4.4.1 of Appendix S: Surface Water Quality Technical Report and Section 13.24.1 of Chapter 13: Surface Water. Section 13.2 of Chapter 13: Surface Water and Figure 4.1 of Appendix S: Surface Water Quality Technical Report have been amended.</p> <p>The revised draft EIS Chapter 13: Surface Water and Appendix S: Surface Water Quality Technical Report have been amended to outline updated relevant BoM weather station data.</p>	<p>Chapter 13: Surface Water Section 13.24.1 Section 13.2 Appendix S: Surface Water Quality Technical Report Section 4.4.1 Figure 4.1</p>
218	218.0133	Local Government	Surface Water	Survey effort/field investigation data	<p>Missing assessment sites: Table 12.6 and Figure 1.2 require additional assessment sites (including all mapping).</p>	<p>The Draft EIS should be updated to include all assessment sites in Figures 12.1a and 12.1b. Further, it is recommended that two more sampling sites be established:</p> <ul style="list-style-type: none"> On Oakey Creek near Kingsthorpe (as this area is at major risk of impact from proposed project activities, even though it is outside of alignment). At Yelarbon (high risk of impact creek) as there is currently a significant distance between sampling locations. 	<p>The selection of appropriate water quality assessment sites is presented in Appendix S: Surface Water Quality Technical Report, Section 3.1.2. Sites were chosen to be representative of the variety of aquatic habitats along the Project alignment, practicality of access, inclusion of waterways of a variety of stream orders and locations upstream and downstream of the Project. It was not desired or feasible to sample every waterway potentially impacted by the alignment and the sample sites chosen were considered sufficiently representative such that the existing conditions would be adequately represented, and impacts resulting from the Project, should they occur, would be detected.</p> <p>ARTC has commenced a surface water monitoring program for the Project (Section 13.6.3 of Chapter 13: Surface water). This Program consists of baseline surface water monitoring (commenced to inform the EIS) and construction surface water monitoring. The locations, frequency and parameters of interest for water quality sampling during construction will be subject to confirmation as part of the CEMP, to be reviewed and accepted by the Environmental Monitor. Surface water monitoring locations will be reviewed prior to commencement of construction to ensure that locations of potential impact, such as those recommended in the submission, are appropriately represented in the Construction Works stage of the surface water monitoring program.</p>	<p>Chapter 13: Surface Water Section 13.6.3 Appendix S: Surface Water Quality Technical Report Section 3.1.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0134	Local Government	Flora and Fauna		The Draft EIS requires amendment to provide a description of what an aqua score is, what it means when there is no aqua score, and correct the wording around GDE mapping, including correcting Appendix R to include appropriate GDE ratings and to include figures showing the locations of these springs.	Project mapping and footprint: The Draft EIS states that 'both aquatic and terrestrial groundwater-dependent ecosystems (GDEs) have been mapped by DES along the project footprint, between NSW/QLD border and Millmerran'. This gives the reader the impression that GDE mapping covers that Section only, whereas other information indicates that this is not entirely correct. Further, the document states that the site does not have an 'aqua score' but fails to discuss how this is relevant to the proposed project. TRC consider that some of the springs in Table 4.13 of Appendix R would rate higher than 'low' potential GDE. Further, GDE's are not clearly indicated on the maps following.	Chapter 11: Flora and Fauna outlines that GDEs were identified along the alignment from the NSW/QLD border to Millmerran. Appendix L: Terrestrial and Aquatic Ecology Technical Report provides further details that ratings of the GDEs were derived by assessment of the DES GDE modelling. GDE mapping considered the impact assessment area and the Project alignment. The mapping is suitable for use at a regional scale, and is produced from an assessment of vegetation mapping, wetland mapping, expert knowledge and the results of existing research.	Chapter 11: Flora and Fauna Sections 11.5 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report
218	218.0135	Local Government	Project scope		Key infrastructure: Section 12.7.5 is focused primarily on transport infrastructure and does not list all existing key infrastructure.	The Draft EIS requires correction to include all key utilities (including, but not limited to, electricity utilities).	Utility impacts have been described in Chapter 5: Project Description, Section 5.4.11. Appendix B4: Utilities contains the design drawings and details of the proposed utilities interactions. ARTC have documented all utility impacts including their associated risk ratings in the Utility Impact Register (UIR), which can be provided as required.	Chapter 5: Project Description Section 5.4.11 Appendix B4: Utilities Sheets 1 - 73
218	218.0136	Local Government	Surface Water		Residential water supply: Section 12.8.1 of the Draft EIS discusses the various impacts the proposed project will have on a number of receptors (provided in Table 12.51). However, there is no mention of impacts on surface storages used for raw water supply for residential/human consumption (e.g., Cecil Plains Weir).	The Draft EIS requires update to include a discussion relating directly to the source of residential/human consumption supply as an impact.	The flooding and hydrology study presented in Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS has assessed impacts to existing overland flow as a consequence of the Project. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, hydrological modelling indicates that no significant changes are expected to base-flow and low-flow conditions and that access to surface water resources will not be affected. As stated in Table 13-16 of Chapter 13: Surface Water, the detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to avoidance, mitigation, rectification or compensation (if applicable). It is noted that the Cecil Plains Weir, referenced by the submission, is located 40 km from the Project alignment. The flooding, hydrology and surface water quality assessments conducted for the revised draft EIS indicate that the Project will not impact on the volume or quality of water available in any surface water storage used for municipal raw water supply.	Chapter 13: Surface Water Table 13-16 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
218	218.0137	Local Government	Waste and Resource Management		Domestic Wastewater: Section 12.8 mentions the on-site storage and containment of wastewater for camps etc yet fails to provide detailed information in relation to the management of such wastewater.	The Draft EIS requires updating to include committing to the appropriate management of wastewater including, but not limited to, describing: <ul style="list-style-type: none">How and where wastewater will be disposed of given zero discharge requirements;Irrigations agreement with landowners; andTransport to appropriate facilities.	Project wastewater is discussed in Chapter 13: Surface Water, Section 13.25.1 Potential Impacts. Proposed mitigation measures to manage workforce accommodation wastewater has been outlined in Chapter 24: Draft Outline Environmental Management Plan. As outlined in Chapter 24: Draft Outline Environmental Management Plan, further engagement is to be undertaken by the contractor with owners and operators of licenced waste disposal facilities and licenced waste carriers. ARTC have documented all utility impacts including their associated risk ratings in the Utility Impact Register (UIR), which can be provided as required.	Chapter 13: Surface Water Section 13.25.1 Chapter 24: Draft Outline Environmental Management Plan
218	218.0138	Local Government	Waste and Resource Management		Flood impact on existing Sewage Pumping Station and associated switchboard: The Draft EIS provides no information regarding what the expected increase in water level is or consider different velocities under the various scenarios.	The Draft EIS requires update to identify how existing TRC infrastructure will be modified to cater for the increase in peak levels of water resulting from changed surface water hydrology as a result of the presence of the proposed project.	The Flood Sensitive Receptor database has been updated to include additional public utility assets such as sewage treatment plants and electricity substations. Changes in flood levels, velocities and time of inundation have been assessed and are reported (and mapped) in the Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.8 of the revised draft EIS Chapter 14: Flooding and Geomorphology. The impact assessment include impacts to Toowoomba Regional Council assets.	Chapter 14: Flooding and Geomorphology Section 14.8 Appendix T1: Hydrology and Flooding Technical Report - Volume 1
218	218.0139	Local Government	Flooding		Condamine River and Floodplain: The Draft EIS provides no information regarding the expected increase in water level as a result of constructing the proposed project across a significant and intense floodplain area, the document also fails to consider different velocities under the various scenarios.	The Draft EIS requires update to identify how existing TRC infrastructure will be modified to cater for the increase in peak levels as a result of the current proposed alignment which effectively cuts the Condamine River Floodplain in two. The proponent should consider alternate and appropriate flood mitigation measures for the Floodplain, including, but not limited to, constructing a viaduct to cross this significant and intense floodplain.	Operational flood impacts in the Condamine River floodplain have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Section 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and have considered various AEP events. Justification and mitigation measures have been provided against each Flood Impact Objective exceedance within the summary tables provided. The Flood Sensitive Receptor database has been reviewed to include additional public utility assets such as STPs, Electric Substations etc. as part of the revised draft EIS. If TRC are concerned about any other specific TRC assets not reported on please let us know so we can include those assets.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3
218	218.0140	Local Government	Editorial		Inconsistent data: Considering that an objective of Table 12.131 is to have the peak impact of equal to or less than 10 mm and Table 12.75 shows that there is the potential for greater than this, the conclusion that the hydrologic and flooding assessment undertaken has demonstrated that the Project is predicted to result in impacts on the existing flooding regime that generally comply with the flood-impact objectives that have been adopted for the project does not appear to be correct.	The Draft EIS should be amended to increase the number and size of culverts etc in order to reduce impact on sensitive receptors. Further, the proposed size of culverts requires serious reconsideration.	The nominated Flood Impact Objectives, as detailed in Chapter 14: Flooding and Geomorphology Section 14.6.3, Table 14-4 were developed in consultation with the Expert Flood Panel to provide guidance as to the point at which a more detailed consideration of impacts is required when they are exceeded. The Project will target achieving the Flood Impact Objectives for events up to and including the 1% AEP (without climate change) for land, receptors, and/or infrastructure that is potentially impacted by the Project. Where it is not practicable or feasible to achieve the Flood impact Objectives at Flood Sensitive Receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case-by-case basis, including through consultation with stakeholders and landowners (refer to Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 22.4). Ongoing design of the Project including culvert composition and sizing will continue in the Detailed Design stage of the Project and in accordance with the Flood Impact Objectives and modelling outcomes.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 22.4
218	218.0141	Local Government	Project scope		Project footprint: Section 13.24.1 of the Draft EIS does not make clear whether the proposed project footprint includes the land temporarily required for accommodation camps and work depots.	The Draft EIS requires update to either make clear to the reader what the proposed project footprint size is and confirm that it includes all infrastructure requirements including, but not limited to, accommodation camps, laydown areas and work depots.	Chapter 15: Groundwater, Section 15.3.1 states that the Project footprint consists of the permanent footprint, which encompasses all permanent infrastructure required for the Project, and the temporary footprint, which encompasses all land that is temporarily required to enable construction of the Project.	Chapter 15: Groundwater Section 15.3.1
218	218.0142	Local Government	Groundwater		Use of bores: Table 13.4 identifies 30 additional bores proposed for monitoring activities, however there is no detail regarding why these locations were chosen or the potential for using existing bores. Further, many of these bores are located in close vicinity of each other (e.g., BH2203-2205, which does not make practical sense).	Table 13.4 requires amendment to include proposed bore usage (whether the bore is for monitoring of impacts by bridge piers, cutting, or if it is for general monitoring purposes). This detail is unable to be inferred from figures and should be discussed in detail in the body of the report (as appropriate).	Information regarding the rationale for installation and monitoring of each Project monitoring bore is provided in the GMMP and detailed in revised draft EIS Chapter 15: Groundwater, Section 15.7.3 and Table 15.20.	Chapter 15: Groundwater Section 15.7.3 Table 15.20
218	218.0143	Local Government	Groundwater	Water quality	Groundwater and soil salinity: The Draft EIS highlights an area of high salinity risk near Southbrook. This is also an area where the proposed alignment has its deepest cut and also a substantial impact to groundwater (the levels of which directly contribute to increased salinity risk). The Draft EIS fails to discuss how salinity is potentially transported in this area or how the proposed project intends to have the impact mitigated to ensure that there is no significant residual impact as a result of the proposed project. Concentrating and distributing salinity, whatever the source, is of concern to TRC given the high risk of spread resulting in pockets of high salinity. Section 4.7.3.2 of Appendix R identifies areas of high and moderate salinity risk however this high-concern issue is not addressed further in the Appendix.	The Draft EIS requires amendment to adequately address the high salinity risk near Southbrook and what mitigation measures are in place to manage spread to ensure that there is no significant residual impact as a result of the proposed project. The assessment in Chapter 8 requires review and update in order to be appropriately addressed.	The salinity risk near Southbrook refers to salinity within soil. Potential for transport of salinity is highest for surface water flows within the construction footprint. Installation of erosion and sediment control measures will minimise risk of saline run-off from exposed soils. Further, regional salinity discussed within Section 4.7.3 of Appendix U: Groundwater Technical Report generally refers to secondary soil salinity as a result of upwelling or irrigation of saline groundwater and the resulting dissolution of salts in the soil profile. This is discussed in the context of risk to infrastructure, not risk to groundwater. The depth to groundwater in the area of Southbrook is > 50 m (Main Range Volcanics). A detailed soil investigation (Appendix J: Soil Assessment Report, Section 3.2) has been undertaken in 2021 along the Border to Gowrie disturbance footprint to further understand the soil properties and refine existing soil mapping. Findings from the detailed soil investigation have informed soil-specific management measures (including for saline and sodic soils, refer to Section 4.8 of Appendix J: Soil Assessment Report) and assist in planning, detailed design of structures, embankments, erosion control measures (temporary and permanent), soil treatment and management, and site rehabilitation planning. No changes are proposed to Chapter 15: Groundwater as the salinity risk near Southbrook refers to salinity within soil, not groundwater.	Chapter 15: Groundwater Appendix U: Groundwater Technical Report Section 4.7.3 Appendix J: Soil Assessment Report Section 3.2 Section 4.8
218	218.0144	Local Government	Groundwater		Seepage: Considering the location of the proposed cuts, 310-C44, for its length and location, appears as if it is on the low side for seepage.	The Draft EIS should be amended to include further investigation and remediation as required.	The inputs and results of the predicative groundwater modelling have been reviewed and revised as part of the revised draft EIS. The model has been revised to reflect the design changes and to include additional data collected. The details of the revised predictive modelling are included in Appendix U: Groundwater Technical Report, Section 6.3. Noting that the design and location of all cuts along the alignment have changed with revised reference design, since the draft EIS and C44 is now redundant.	Appendix U: Groundwater Technical Report Section 6.3
218	218.0145	Local Government	Groundwater		Community water supply: The drawdown and seepage estimates provided for Ch 174.52 are concerning for TRC as the groundwater in this area is of high importance to the TRC area. TRC are currently investigating the potential to use this aquifer to make a much-needed contribution to the communities drinking water supply, with findings indicating that the option is a positive one. There is also a GDE attached to this aquifer.	The Draft EIS should be amended to show how the proposed impact on this aquifer will be appropriately managed. This discussion should not only include localised drawdown, but also the overall impact on the aquifer. Discussing drainage only is not considered sufficient as this does not prevent or reduce impacts on the aquifer. If left, this would create an unnecessary draw on the aquifer. TRC are open to this water being used during construction however any access for construction purposes will require sealing off before construction is finalised. It should be noted that even the granting of a temporary permit to access this aquifer may be difficult. TRC requests that the OCG impose the following condition: <ul style="list-style-type: none">The proponent is required to consult with TRC regarding groundwater, drawdown and the use of groundwater for construction purposes and to make written agreement with Council regarding this issue at least six months prior to commencing any construction activities. This includes committing to sealing off any required access post-construction.	The predicative groundwater modelling results indicated that the horizontal extent of drawdown is predicted to extend a maximum of 10 m to 43 m horizontally from the rail centreline (from the deepest cuts). This drawdown will be localised around the vicinity of the deep cuts that intersect groundwater only. No regional groundwater drawdown/wider impact on the aquifer is anticipated. The modelling was updated and further refined as part of the revised draft EIS, see Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3. Noting that the design and location of all cuts along the alignment have changed since the draft EIS. Drawdown is no longer predicted in this area. Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 and 15.4.4). Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The baseline groundwater dataset, in addition to regular groundwater monitoring during the Construction Works and Operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project (see the groundwater management and monitoring program (GMMP) in Chapter 15: Groundwater, Section 15.7.3 for a detailed approach to monitoring for impacts during construction).	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.6.2 Section 15.7.3 Appendix U: Groundwater Technical Report Section 6.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0146	Local Government	Groundwater		Flow pathways: Alterations of existing groundwater flow pathways: The Draft EIS discusses deep cuts in the Main Range Volcanics but should also consider the possibility that there are localised fractures that have their only pathway out via what is now a cutting. If the cutting is sealed, this pathway may be closed with pressure building up and the water finding an alternate path.	While it is noted that this is difficult to determine until the cutting is done, and even then, may still be unknown, the Draft EIS should be amended to appropriately commit to further investigation and remediation.	<p>Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (Chapter 15: Groundwater, Section 15.4.4). Mitigation measures to be implemented for potential impacts associated with the Project are presented in Table 15.20 of Chapter 15: Groundwater. Mitigation measures include visual inspection of deep cuts to help identify areas of seepage. Groundwater modelling and monitoring will be undertaken upgradient and downgradient of deep cuts anticipated to intercept groundwater.</p> <p>A Groundwater Management and Monitoring Plan (GMMP) has been developed for ongoing assessment of the potential impacts (see Section 8.3 of Appendix U: Groundwater Technical Report, Chapter 24: Draft Outline Environmental Management Plan). The GMMP will be assessed and updated before the commencement of each future Project stage (Pre-Construction Activities and Early Works, Detailed Design, Construction Works and Operations) such that the GMMP for subsequent stages is informed by the outcomes of the previous stage.</p> <p>Mitigation measures to be implemented for potential impacts associated with the Project are presented in Table 15.20 of Chapter 15: Groundwater. Mitigation measures include visual inspection of deep cuts to help identify areas of seepage. Groundwater monitoring will be conducted throughout the Construction Works and Operations stages of the Project to monitor for potential adverse impacts as a result of the Project.</p> <p>As outlined in Chapter 24: Draft Outline Environmental Management Plan, ARTC will undertake groundwater modelling and monitoring upgradient and downgradient of any deep cuts, as well as cuts which intercept groundwater. Modelling will be undertaken prior to construction, for a duration suitable to determine no impacts have occurred as a result of construction of the cutting.</p>	Chapter 15: Groundwater Section 15.4.4 Table 15-20 Chapter 24: Draft Outline Environmental Management Plan Appendix U: Groundwater Technical Report Section 8.3
218	218.0147	Local Government	Groundwater	Water quality	Groundwater contamination: The Draft EIS fails to discuss other sources of contamination over the long term. The possible contamination of groundwater due to heavy metals etc coming from the rail and seeping into the ground should be considered. This seepage will occur over the life of the rail and as such, should not be ignored.	The Draft EIS should be amended to include details of research findings from other locations where rail has been in existence for extended periods and propose appropriate mitigation measures based on these findings.	<p>Existing contamination along existing sections of rail corridor is confined to the surface and has not been transported deeper into the soil profile or into groundwaters; therefore, contamination of groundwater from operation of the rail corridor is also not expected to occur.</p> <p>Predictive modelling for has determined that groundwater seepage may occur from the face of deep cuts (>10 m) where groundwater is intersected; however, the assessment has concluded that seepage water, in general, will evaporate (Chapter 15: Groundwater, Section 15.6.2). Potential contamination from ongoing operation of the rail will be surficial in nature and not expected to interact with groundwater. Minimum groundwater depths for shallow aquifers along the Project alignment range from ~5 mBGL (Border Rivers Alluvium) to ~15 mBGL (Condamine Alluvium) (Chapter 15: Groundwater, Section 15.5.5). Seepage control measures will be adopted in accordance with QR Civil Engineering Standard QR-CTS-Part 35 – Stone and Concrete Slope Protection (Chapter 15: Groundwater Section 15.7.1 and Table 15-20)</p> <p>Chapter 9: Land Resources of the revised draft EIS includes the outcomes of investigations undertaken since the draft EIS was issued.</p>	Chapter 9: Land Resources Chapter 15: Groundwater Section 15.5.5 Section 15.6.2 Section 15.7.1 Table 15-20
218	218.0148	Local Government	Groundwater		Groundwater resources: The Draft EIS states that the reference design is for a 300 mm drainage blanket (to be applied to the face of all cuts). This may be considered adequate if the solution is to allow the aquifer to continue to flow. Allowing the aquifer to free flow at rates of up to 3.3 L/s, will in the long-term damage an already strained resource.	<p>The Draft EIS should be amended to consider alternate treatments. This water is unlikely to return to the aquifer and is therefore lost. Permanent allocations of this magnitude are not available, unless sufficient is able to be purchased via the open market.</p> <p>The Draft EIS should include an assessment of the impact the addition of this water to surface water flows will have on flood water, wildlife, weeds and pests.</p>	<p>The Detailed Design stage will allow for updates and changes to the design as required. The application of the drainage blanket is proposed for the Construction Works stage.</p> <p>Deep cuts will be drained in perpetuity, as required to prevent groundwater pressure build-up and maintain the structural integrity of the cutting faces. The seepage from deep cutting faces will be managed in accordance with QR Civil Engineering Standard QR-CTS-Part 35 – Stone and Concrete Slope Protection (QR, 2010). Groundwater seepage and rainfall infiltration will be channelled from the cut face via the drain and weepholes to the base of the cut, where it will dissipate via surface water drainage infrastructure and eventual transpiration or infiltration and recharge (Chapter 15: Groundwater, Section 15.6.2).</p> <p>The seepage analysis will be refined for deep cuts, from results of the ongoing investigations, during the detailed design (for example lining high permeable sections of the cuts, drainage blanket specifications, shotcrete and weep hole specifications) to avoid and/or minimise groundwater seepage.</p> <p>The predicative groundwater modelling has been revised as part of the revised draft EIS, to reflect the design changes and to include additional data collected (Chapter 15: Groundwater, Section 15.6 and Appendix U: Groundwater Technical Report, Section 6.3).</p>	Chapter 15: Groundwater Section 15.6 Section 15.6.2 Appendix U: Groundwater Technical Report Section 6.3
218	218.0149	Local Government	Groundwater		Groundwater monitoring: The monitoring program proposed in the Draft EIS does not include the length of time the program will run. This should be longer than the construction phase, particularly in the areas where proposed cuttings impact on the groundwater.	<p>The Draft EIS should include a commitment from the proponent to undertake rectification works should issues with groundwater (as a result of the proposed project) be identified. This should include reporting to the appropriate regulatory and statutory bodies and making groundwater data publicly available on QLD Globe.</p> <p>TRC requests that the OCG impose the following condition:</p> <ul style="list-style-type: none"> The proponent is required to complete an analysis of monitoring data and provide the findings in report format to TRC and other regulatory bodies and/or interested parties at least six months prior to any construction activities. 	<p>Section 15.7.3 in Chapter 15: Groundwater and Appendix U: Groundwater Technical Report, Section 8.3, detail the proposed groundwater management and monitoring program (GMMP) for each Project stage. Site-based groundwater monitoring events are on hold until the Detailed Design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (Chapter 15: Groundwater, Section 15.4.4). Following the baseline assessment, a Construction GMMP, discussed in 15.7.3 in Chapter 15: Groundwater, will be undertaken for the length of the construction period, with frequency of sampling to be decided based on the baseline and construction requirements.</p> <p>During operation, there will also be an Operation GMMP in place, discussed in Section 15.7.3 in Chapter 15: Groundwater with the length and frequency to be determined by the preceding groundwater management and monitoring programs.</p> <p>Office of Coordinator-General is responsible for conditioning the groundwater monitoring requirements for the Project. ARTC will provide monitoring reports as conditioned by the approving authority.</p>	Chapter 15: Groundwater Section 15.4.4 Section 15.7.3 Appendix U: Groundwater Technical Report Section 8.3
218	218.0151	Local Government	Noise and Vibration		<p>Inappropriate noise criteria: The proponent has nominated noise criteria which will ensure that the majority of the cost of rail noise mitigation, financial or otherwise, is borne by the community.</p> <p>The L_{max} trigger level utilised to inform noise mitigation in the Draft EIS is 80 dB(A). For perspective, acceptable construction for a dwelling in a rail noise corridor that experiences 80 dB(A) L_{max} is:</p> <ul style="list-style-type: none"> Minimum 10.38mm laminated glass with acoustic seals for small windows; Minimum 14.38mm laminated glass or double-glazing with acoustic seals for large windows and sliding doors; Double brick walls; and Insulated roof with sarking. <p>This is an extremely onerous level of noise mitigation required at 80 dB(A) L_{max}, however the same noise level is only the point at which the proponent will consider mitigation.</p> <p>Queensland mandates acoustic construction requirements via the QDC MP4.4 for dwellings in a noise corridor with rail noise levels over 69 dB(A) L_{max}. QDC MP4.4 does not provide Leq criteria. WHO guidelines recommend 44 dB(A) L_{night} as the limit to mitigate sleep disturbance.</p> <p>Therefore, it can be considered that any sensitive dwellings that are predicted to experience noise over 44 dB(A) L_{night} and 69 dB(A) L_{max} and below the trigger levels are being overlooked by this assessment. These dwellings (and there are hundreds of them) will experience varying noise impacts but will not receive any mitigation from the proponent.</p> <p>TOR 5.1 states the objectives of the EIS are to ensure that all relevant environmental, social and economic impacts of the proposed project are identified and assessed, and to recommend mitigation measures to avoid or minimise adverse impacts. Based on these findings, the Draft EIS does not satisfy the fundamental objective described in TOR 5.1. As clearly demonstrated below, the true impacts of noise and vibration from the project have been grossly underestimated and dismissed. This is not acceptable to TRC.</p>	<p>The draft EIS does not meet TOR 5.1 and the true impacts of noise and vibration from the project have been grossly underestimated and dismissed. This is not acceptable to TRC. The Draft EIS requires correction to include:</p> <ul style="list-style-type: none"> Detailed commitments from the proponent to mitigate noise for residences on or in the vicinity of the rail corridor to ensure that there is no significant residual impact as a result of the proposed project. Use of appropriate noise criteria. A true and accurate assessment of noise and vibration impacts on sensitive receptors. 	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance, that are reasonable and practicable. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments. QDC MP4.4 does not apply to infrastructure providers such as Inland Rail. Comparison of the requirements of MP4.4 against the Project is inconsistent with the approach defined in the Interim Guideline to define potential impacts.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC will ensure required mitigation is in place at the start of operations. The at-property treatments shall be considered as soon as possible once the assessment of the final design is complete to support the mitigation of construction impacts and minimise the risk of not having mitigation in place prior to the commencement of railway operations. The determination of eligibility of treatments, and the specific treatment provided, is also likely include the measurement of noise levels from the operation of the Project. Particularly, where the modelled (predicted) noise levels are within a relatively small margin of compliance.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
218	218.0156	Local Government	Noise and Vibration	Operational rail noise	Operational noise: The Draft EIS discusses using a 7dB(A) adjustment for external to internal noise levels through an opened window with regard to non-residential sensitive receivers. The last sentence states that "in practice, many of the buildings listed in Table 14.35 will be a modern building construction and likely have air-conditioning, so windows do not need to be opened. This would result in a lower railway noise levels within buildings and potentially reduce noise mitigation requirements. <p>For example, Brookstead State School may have air-conditioning installed already, but currently only use it for 2 months per year. If the proponent assesses the mitigation requirements of the school based on windows closed and air-conditioning running, the proponent takes advantage of the existing improvements made by the school while forcing them to change their normal use of the windows and air-conditioning. This may result in reduced amenity, increased electricity costs, increased greenhouse gas emissions associated with increased electricity usage at the school, while the proponent benefits by showing that internal criteria are met.</p>	<p>The proponent should make a clear commitment regarding the management of mitigation at sensitive receptors rather than rely on the assumption that existing acoustic improvements at a location will minimise the proponents liability to mitigate appropriately.</p> <p>This should be considered when at-property mitigation is negotiated</p>	<p>Facade reduction is a conservative estimate of the difference between outdoor railway noise and indoor railway noise allowing for windows to be open for ventilation.</p> <p>In the assessment of construction noise impacts, the CoP Vol 2 also prescribes that internal airborne construction noise criteria be met where reasonable and practicable for the sensitive receptor types that include hospital & health care service, educational establishment, community use & place of worship, as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. To assess the noise model predicted external noise levels against the internal (indoor) noise limits presented in Table 3-4 of Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, the noise limits are adjusted by a facade correction which accounts for the reduction of noise achieved by the building (with windows open). For the educational establishments and community buildings potentially impacted by the Project, a conservative 7 dB facade noise reduction has been applied, in the absence of actual measurement data, based on the guidance provided in DES Noise and Vibration EIS Information Guideline recommended for typical Queensland buildings. Further to the this, sound insulation testing of facades typically representative of the educational buildings at Yelarbon State School, Brookstead State School, Pittsworth State High School and Southbrook Central State High were measured by WSP (WSP Report B2G Inland Rail Background Noise Monitoring and Facade Sound Insulation testing dated 21 February 2023). This information was also taken into account in the assessment as discussed in Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>The applicable DTMR Interim Guideline operational rail noise criteria for both residential and educational receivers are same and define an outdoor criteria (Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations). Where these outdoor criteria are exceeded, feasible and practicable noise mitigation measures for non-residential receivers will be further investigated during the Detailed Design stage and installed prior to Inland Rail operations commencing (see Section 16.10 of Chapter 16: Noise and Vibration).</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3.3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0162	Local Government	Noise and Vibration	Operational rail noise	<p>Operational noise impact: Section 14.8.2.2 presents examples of at-premises noise mitigation such as increased glazing or facade construction. It is not expected that this is intended to limit possible mitigation options, but it is unclear to the reader nonetheless.</p> <p>The word or should not be used as it implies that increased glazing AND facade construction will not be offered together. Air-conditioning should also be mentioned here as any improvements to glazing and facades imply that windows are permanently closed and air-conditioning will be required.</p> <p>Section 14.8.2.2 states that external rail noise levels have the potential to be clearly audible above the ambient noise environment in close proximity to the rail corridor, such as the initial 400 m from the rail corridor. This distance is underestimated. Using receiver 255402 as an example, it is approximately 1600 m from the rail line and is predicted at 73dBA Lmax which is approximately 45dBA above the night-time rating background level in the area. This demonstrates the trains will be clearly audible at distances FAR in excess of 400 m.</p> <p>Section 14.8.2.2 further states that given the high level of noise that can be experienced close to a rail corridor during train pass-bys, there can still be potential for noise-related impacts, including sleep disturbance, where property treatments are implemented.</p> <p>Again, close to a rail corridor should be understood as meaning much further than 400 m and there are hundreds of dwellings with noise levels over the WHO guidelines but which the Draft EIS fails to commit to provide appropriate mitigation to.</p> <p>The Draft EIS further states that proposed mitigation measures may not be able to provide an amenable dwelling yet fails to provide a solution for situations where that is the case.</p>	<p>The Draft EIS requires updating to:</p> <ul style="list-style-type: none"> Correct Section 14.8.2.2; Quantify the extent of the impact of rail noise on outdoor spaces with relation to the exceedance of background levels; and Provide a solution for when noise criteria cannot be met with mitigation. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>At-property treatments will be provided based on the level of exceedance and, as the submitter points out, could therefore include both upgraded glazing and facade improvements. Section 16.10 of Chapter 16: Noise and Vibration of the EIS discusses at-property treatments that form part of the mitigation measures.</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The operational noise model extended 2 km from the Project alignment, taking into account over 8000 buildings. Of the buildings identified, 2,388 receptors were identified as being potential noise and vibration sensitive receivers. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC notes the submitter's concerns regarding additional impact in areas with low background noise levels and during the night time period. The Interim Guideline does not require noise from railway operations, including where noise mitigation is implemented, to be inaudible at sensitive receptors. The Interim Guideline does not require consideration of background noise levels in the assessment or the time of day that rail traffic is operating. DTMR have been explicit in requiring ARTC to undertake the assessment in compliance with the state guideline. ARTC acknowledge that the potential for annoyance or disturbance from rail noise is subjective and can remain a potential impact even where noise mitigation is implemented, and noise levels are well within the noise criteria.</p> <p>As specified, in Section 16.10 of the revised draft EIS, ARTC will undertake operational noise and vibration monitoring following commencement of Inland Rail to ensure that the noise modelling was accurate and noise mitigation has been provided as required. If the monitoring identifies any additional exceedances of the criteria, ARTC will provide additional feasible and practicable mitigation.</p> <p>ARTC are committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the Detailed Design stage to minimise disruption in the Construction Works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 10</p> <p>Appendix A</p>
218	218.0163	Local Government	Noise and Vibration	Operational rail noise	<p>Noise: Section 14.11 states the external rail noise levels have the potential to be clearly audible above the ambient noise environment in relatively close proximity to the rail corridor, such as the initial 300 m from the rail corridor.</p> <p>The distance of 300 m has changed from the 400 m quoted in Section 14.8.2.2, but in either case it is far underestimated.</p>	<p>The current assessment grossly underestimates the true extent of noise impacts. The Draft EIS requires update to provide consistent and accurate data regarding the true extent of the impact of rail noise on outdoor spaces.</p>	<p>The operational noise model extends 2 km from the Project alignment, taking into account over 8000 buildings. Of the buildings identified, 2408 2,396 receptors were identified as being potential noise and vibration sensitive receivers (refer to Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations). ARTC is confident that our noise modelling is an accurate representation of external noise impacts.</p> <p>The operational rail noise and vibration assessment has been revised to comply with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The Interim Guideline does not require noise from railway operations, including where noise mitigation is implemented, to be inaudible at sensitive receptors. ARTC acknowledge that the potential for annoyance or disturbance from rail noise is subjective and can remain a potential impact even where noise mitigation is implemented, and noise levels are well within the noise criteria.</p> <p>As specified, in Section 16.10 of the revised draft EIS, ARTC will undertake operational noise and vibration monitoring following commencement of Inland Rail to ensure that the noise modelling was accurate and noise mitigation has been provided as required. If the monitoring identifies any additional exceedances of the criteria, ARTC will provide additional feasible and practicable mitigation.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p>
218	218.0164	Local Government	Editorial		<p>Inconsistent terminology: Chapter 14 is inconsistent in the use of the term day, evening and night and the hours of the day that they apply to. This can affect assessment criteria and the identification of impacts from the project.</p> <p>For example, Section 14.6.5.1 refers to daytime from 7am-10pm and night-time from 10pm-7am. At Section 14.6.5.2 it refers to daytime from 7am-6pm, evening from 6pm-10 pm and night-time from 10pm-7am.</p>	<p>The Draft EIS needs to be reviewed to ensure the following:</p> <ul style="list-style-type: none"> The terms day, evening and night and the hours of the day that they apply to have been correctly and consistently used. Noise and vibration assessment criteria are appropriate for the period of day. 	<p>Noted. Consistency in terminology of work periods has been noted Section 16.5 of Chapter 16: Noise and Vibration is correct and terminology of Day, Evening and Night has been updated to maintain consistency with work hours and the TMR Noise Code of Practice Vol 2 for work hours.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p>
218	218.0165	Local Government	Flora and Fauna	Operational rail noise	<p>Impacts to flora and fauna: Chapter 14 of the Draft EIS makes vague reference to fauna impacts from noise. It notes that during construction, impacts may be greatest in State forests but will only be temporary and no permanent impacts are expected. Operational noise is largely dismissed due to the presence of existing linear infrastructure in the area, including rail, and the assumption is made that fauna will adapt to the project as they are already exposed to transport noise. No consideration is given to the significant change to train types, length, speed, frequency of operations and how this may affect fauna. In short, the existing versus the proposed rail operations are not comparable. Notably, no reference is made at all to vibration impacts to fauna in Chapter 14.</p> <p>Chapter 10 largely repeats information supplied in Chapter 14 and makes no further assessment of noise impacts to fauna. It too relies on the assumption that fauna will adapt to the project as they are already exposed to transport noise. No consideration is given to the significant change to train types, length, speed, frequency of operations and how this may affect fauna.</p> <p>As noted earlier, noise emissions from the operations are expected to significantly impact many sensitive receptors from noise nuisance and sleep disturbance. It is reasonable to assume that noise and vibration emission will also affect wildlife however this is not adequately addressed by the Draft EIS. The Draft EIS does not meet TOR 11.95 as the impacts of noise and vibration on fauna have not been adequately assessed.</p>	<p>Impacts to flora and fauna: Chapter 14 of the Draft EIS makes vague reference to fauna impacts from noise. It notes that during construction, impacts may be greatest in State forests but will only be temporary and no permanent impacts are expected. Operational noise is largely dismissed due to the presence of existing linear infrastructure in the area, including rail, and the assumption is made that fauna will adapt to the project as they are already exposed to transport noise. No consideration is given to the significant change to train types, length, speed, frequency of operations and how this may affect fauna. In short, the existing versus the proposed rail operations are not comparable. Notably, no reference is made at all to vibration impacts to fauna in Chapter 14.</p> <p>Chapter 10 largely repeats information supplied in Chapter 14 and makes no further assessment of noise impacts to fauna. It too relies on the assumption that fauna will adapt to the project as they are already exposed to transport noise. No consideration is given to the significant change to train types, length, speed, frequency of operations and how this may affect fauna.</p> <p>As noted earlier, noise emissions from the operations are expected to significantly impact many sensitive receptors from noise nuisance and sleep disturbance. It is reasonable to assume that noise and vibration emission will also affect wildlife however this is not adequately addressed by the Draft EIS. The Draft EIS does not meet TOR 11.95 as the impacts of noise and vibration on fauna have not been adequately assessed.</p>	<p>The EIS has been revised to include an assessment of potential noise and vibration impacts to fauna (refer to Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report) and considers both construction and operational noise.</p> <p>The assessment of construction noise determines that noise associated with construction activities will be short-term in duration and it is likely that fauna will temporarily move out of areas that are subject to high levels of noise. Construction noise will be perceivable by fauna species within the area as the harmonic ranges produced by construction overlap with the hearing range and frequency of birdsong with species that occur in the area. This can potentially affect communication including calling to attract mates, territory defence, and warning of predators. The proposed mitigation measures for the Project in Chapter 11: Flora and Fauna includes a measure to stage works so that they avoid animal breeding periods (for species that breed within Australia) as much as possible within areas of habitat.</p> <p>Chapter 11: Flora and Fauna discusses further that operational noise may lead to some fauna species temporarily vacating/avoiding nearby habitat until the temporary noise (pulse) passes. The duration and frequency of the operational noise is unlikely to result in significant changes to species behaviour or avoidance of the area.</p> <p>The Project impacts from noise and vibration as well as the proposed mitigation measures are discussed in detail in the revised draft EIS, Chapter 16: Noise and Vibration, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Technical Report and Appendix W: Noise and Vibration Assessment – Railway Operations Technical Report.</p>	<p>Chapter 11: Flora and Fauna</p> <p>Sections 11.5 and 11.7</p> <p>Chapter 16: Noise and Vibration</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Technical Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Technical Report</p>
218	218.0166	Local Government	Social Impact Assessment	Workforce accommodation village	<p>Accommodation shortages: The housing and accommodation market in the TRC area has changed significantly since the analysis conducted for the Draft EIS. Data published by The Chronicle on 20.1.21 shows a rental residential vacancy rate in January 2021 of 0.7% and anecdotal evidence and commentary in local media indicates that housing for sale in the TRC area is both reduced in availability and sale times are quite short.</p> <p>The Draft EIS states that free or subsidised accommodation will be provided to construction personnel within non-resident workforce accommodation where personnel live outside the safe daily driving distance. The Draft EIS assumes that sufficient vacant supply will exist at the northern end of the project to not require non-resident workforce accommodation (based on June 2018 vacancy rate data).</p> <p>The Draft EIS fails to acknowledge the current record-low vacancy rate that the TRC area (including Pittsworth and Southbrook) and proposes to use private accommodation in the northern Section of the proposed alignment, further exacerbating the accommodation issues that the TRC area is currently experiencing.</p> <p>Claims in the draft EIS that those who will be displaced will simply move to another area to accommodate a short-term workforce bought in from other areas is not considered to be an acceptable solution by TRC.</p>	<p>The Draft EIS's analysis of short-term accommodation and impacts on social infrastructure needs to be updated to address the current situation including, but not limited to, consideration of the:</p> <ul style="list-style-type: none"> Potential impact of workforce on residential accommodation (given current high demand and low rental vacancy rates). Potential problems created across the whole Region including in Toowoomba, Pittsworth, Millmerran and Southbrook through the proposed use of private accommodation rentals for the workforce. How the extreme lack of accommodation in the TRC area will be considered and managed in a way which ensures the local community won't be adversely impacted. <p>The Draft EIS should consider all accommodation options and how potential and real adverse impacts to accommodation in the TRC area as a result of the construction of the proposed project through committing to:</p> <ul style="list-style-type: none"> Prioritising a local workforce which does not require accommodation (as they already have it); and Encouraging any imported workforce to seek alternate accommodation which will not adversely affect the housing shortage currently being experienced by the local community; and Providing any imported workforce with separate, alternate accommodation and avoiding negative impacts to accommodation availability. <p>There has been a significant and substantial decrease in rental vacancy across the TRC region since June 2018. The Draft EIS requires update to consider current vacancy rates in the TRC area and provide for appropriate non-resident workforce accommodation in Toowoomba or nearby surrounding townships to satisfy any gap between acceptable supply levels and demand.</p>	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 5.5.2 includes updated housing data recognising the extremely tight rental housing market in the Toowoomba LGA. In providing sufficient capacity for all non-local workers, within the proposed accommodation facilities, ARTC expects that impacts will be largely mitigated, however the Accommodation Management Plan described in Section 8.4.4 of Appendix X: Social Impact Assessment has been revised to acknowledge the change in housing conditions, and provide more detailed and stringent management measures, e.g.,</p> <ul style="list-style-type: none"> Discouraging single status personnel from renting houses in local communities Avoiding use of rental housing in SIA study area postcodes where the rental vacancy rate is less than 2.5 per cent (which signifies a tight rental market) Use of local short-term accommodation, where appropriate in view of peak demands 	<p>Appendix X: Social Impact Assessment</p> <p>Section 5.5.2</p> <p>Section 8.4.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0167	Local Government	Social Impact Assessment		Local business: The Draft EIS states that the proposed project will be required to develop an Australian Industry Participation Plan.	nil.	<p>As per the submitter's comment, an Australian Industry Participation Plan (AIP Plan) will be prepared to support opportunities for businesses to supply the Project (Appendix X: Social Impact Assessment, Section 2.4).</p> <p>ARTC is committed to providing full, fair and reasonable opportunities for capable local businesses and Indigenous businesses to compete and participate in the Project's supply chain.</p> <p>Appendix X: Social Impact Assessment, Section 8.1 notes that to maximise the Project's benefits, ARTC has adopted a hierarchy for industry participation strategies which prioritise the Project footprint LGAs (Goondiwindi and Toowoomba).</p> <p>Inland Rail's tender assessment criteria includes local Indigenous participation as a key element of all construction tender assessments.</p> <p>Appendix X: Social Impact Assessment, Section 8.3.1 has been updated to provide examples of and commentary regarding minimum benchmarks and aspirational targets relevant to local and Indigenous procurement and workforce participation.</p> <p>Businesses which trade from a street address within the SIA study area or Region (as defined above) are considered "local". Appendix X: Social Impact Assessment, Section 8.6.3. has been updated in this regard. This is consistent with the reporting framework for other Inland Rail Projects and ARTC is unable to adopt additional Project-specific definitions.</p> <p>Appendix X: Social Impact Assessment, Section 8.6.5 describes the Project's reporting arrangements, including that the Project will report on supplier participation from the Project footprint LGAs. The Project will also report on supplier participation in the Project Region, being LGAs outside the Project footprint, but within 125 km radius of the Project.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 2.4</p> <p>Section 8.1</p> <p>Section 8.3.1</p> <p>Section 8.6.3</p> <p>Section 8.6.5</p>
218	218.0168	Local Government	Social Impact Assessment		Amenity of towns: The Draft EIS states that the amenity of Yarrabon, Brockstead, Millmerran and Pittsworth (and Gowrie Mtn) may be affected by rail noise and changes to scenic character and commits to engage with TRC to identify partnership opportunities to address impacts on local character and the amenity of these towns.	nil.	<p>The revised draft EIS details the measures designed to mitigate impacts amenity (e.g. noise and vibration mitigation measures and landscape treatments). Appendix X: Social Impact Assessment notes the value of partnerships in addressing impacts e.g. building on initiatives which Council has already planned or support for community projects to improve amenity (Section 8.1 of Appendix X: Social Impact Assessment).</p> <p>ARTC has engaged with TRC throughout 2022-2023 to identify initiatives to improve amenity and scenic character, to be detailed as part of the Community Wellbeing Plan (Appendix X: Social Impact Assessment, Section 8.5.6).</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 8.1</p> <p>Section 8.5.6</p>
218	218.0169	Local Government	Social Impact Assessment	Workforce accommodation village	<p>Workforce Accommodation: TRC services such as water and road maintenance may experience increased demand in the Millmerran, Inglewood and Yarrabon areas. The Draft EIS does not commit to consult with TRC to identify appropriate mitigation measures to reduce impacts from the proposed project on local government services.</p> <p>Millmerran already has strict water restrictions in place. Potential negative impacts to Millmerran's available water supply from proposed project activities has not been appropriately addressed.</p>	nil.	<p>Revised draft EIS Appendix X: Social Impact Assessment Section 8.4, 7.3 and 6.1 have been updated with additional information regarding the workforce accommodation facilities and the consultation process.</p> <p>ARTC has identified preferred sites for non-resident workforce accommodation facilities based on several criteria, identification of suitable land parcels, and agreement with the owners of those parcels to nominate the sites as preferred sites in the revised draft EIS, as described in Appendix X: Social Impact Assessment, Section 7.3.4.</p> <p>As the previously proposed site in the Turallin area proved unsuitable, the Contractor is currently undertaking due diligence to identify a workforce accommodation facility site in the Millmerran area, and will engage with TRC when preferred site/s are identified.</p> <p>Council's advice on water restrictions is noted. TRC's inputs as part of the draft EIS consultation process (described in Appendix X: Social Impact Assessment, Section 7.3.4) included that Council would assess proposed non-resident workforce accommodation facilities on a case-by-case basis, with site specific information needed to support assessment, that ARTC would need to consult further on water and sewerage infrastructure when proposed accommodation sites are selected, and waste management would need consideration.</p> <p>ARTC has noted that non-resident workforce accommodation facilities are likely to require self-sufficient provision of potable water and sewage treatment. Road maintenance costs will be discussed with road asset owners as part of the development application process for the accommodation facilities.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 8.4</p> <p>Section 7.3</p> <p>Section 7.3.4</p> <p>Section 6.1</p>
218	218.0171	Local Government	Social Impact Assessment	Workforce and employment	Loss of employment: The Draft EIS states that the current proposed alignment traverses land currently used by feedlots, a piggery and a poultry farm, with partial or full land acquisitions required. As a direct result, there may be potential for the loss of employment for agribusiness workers if operations are significantly disrupted or reduced.	nil.	<p>As a result of stakeholder feedback, ARTC has revised the Project's concept design to avoid the Doug Hall (Moyness) piggery and poultry farm. As such, the anticipated impacts noted by TRC have been reduced.</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts.</p> <p>The Project footprint avoids the Yarrabrook Feedlot's feeding system infrastructure, cattle handling infrastructure and associated facilities, but traverses through the Feedlot's pivot irrigation fields, where partial acquisition will be required. This may result in the need to relocate the pivot irrigation fields.</p> <p>The permanent footprint traverses through land associated with D M Fletcher Feedlot at Bringally. The footprint avoids the feed lot's infrastructure, but severs the land parcel. The permanent footprint traverses through the land parcel on which the R Sydney and KM Stevens Feedlot is located at Millwood, requiring partial or full acquisition, but avoids the feedlot's infrastructure.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 8.6.1</p>
218	218.0172	Local Government	Editorial		Naming: The Draft EIS refers to Toowoomba Enterprise Hub. The major stakeholders of that precinct have a preference for it to be referred to as Toowoomba Trade Gateway.	The Draft EIS should be amended to correctly refer to the Toowoomba Enterprise Hub as the Toowoomba Trade Gateway.	Noted. Names and descriptions have been revised where occurrences occur such as Chapter 2: Project Rationale and Chapter 8: Land Use and Tenure.	<p>Chapter 2: Project Rationale</p> <p>Chapter 8: Land Use and Tenure</p>
218	218.0173	Local Government	Cultural Heritage		<p>Indigenous cultural heritage has been assessed by the proponent and the report identifies that Cultural Heritage Management Plans (CHMPs) have been developed. These have not been provided as part of the draft EIS, but a summary has been included of the issues as well as the proposed mitigation and management solutions.</p> <p>Based on the draft EIS, it is clear that the proposed alignment will cause disruption to some areas of Indigenous cultural heritage, and it is unclear if the CHMPs can achieve the TOR objective for cultural heritage (that the Project does not compromise the cultural heritage significance of a heritage place or heritage area).</p>	In relation to Indigenous cultural heritage, it is unclear whether the TOR has been achieved based on the information provided. The draft EIS requires revision to make clear whether or not the OCGs TOR for cultural heritage has been achieved.	Cultural Heritage Management Plan are confidential documents, and the management of Aboriginal heritage sites is a matter between the Aboriginal Party and the proponent. The Terms of Reference requires that a Cultural Heritage Management Plan be in place, and that the details of this Cultural Heritage Management Plan (or the steps taken to develop a Cultural Heritage Management Plan) be provided. A Cultural Heritage Management Plan has been developed between ARTC and Bigambul People, Western Wakka Wakka people and the Endorsed Aboriginal Parties for the unclaimed area in 2018. These plans ensure ARTC meets the Office of Coordinator-General TOR.	<p>Chapter 19: Cultural Heritage</p> <p>Table 19-8</p>
218	218.0174	Local Government	Cultural Heritage		<p>Existing railway: TOR 5.1 requires the EIS to ensure that all relevant environmental, social and economic impacts of the Project are identified and assessed, and to recommend mitigation measures to avoid or minimise adverse impacts. The EIS should demonstrate that the Project is based on sound environmental principles and practices.</p> <p>The draft EIS does not meet the requirements of TOR 5.1. Chapter 17 fails to clearly address the proposed and complete loss (through removal/ burial) of the existing historic Millmerran Branch rail line, which runs east from Millmerran to Murlaggan and how this will be managed.</p>	It is in the public interest that the draft EIS be amended to meet the requirements of TOR 5.1 including, but not necessarily limited to, detail regarding how the new and old railway routes are to co-exist and what measures are in place to incorporate the preservation of the cultural heritage of the old rail line and station locations (Yandilla, Pampas, Cecilvale, Murlaggan) into the proposed Project. Opportunities for repurposing or reusing the old lines should be considered by the proponent.	<p>Site inspections and assessments were undertaken along the Millmerran line as outlined in Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Section 6. While some early or original bridges remain intact, most station elements had been removed or relocated (including Yandilla, Pampas, Cecilvale, and Murlaggan), leaving little to be preserved. All sites were assessed against heritage criteria, and were generally found to be of no significance. Where sites were found to be significant, management recommendations were made, as outlined in Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Section 9.</p> <p>Recommendations for a Heritage Interpretation Plan has also been added to Chapter 19: Cultural Heritage, Table 19-21 and Table 19-22, and Appendix Z: Non-Indigenous Cultural Heritage Survey Report, Tables 9.1 and 9.2.</p>	<p>Chapter 19: Cultural Heritage</p> <p>Table 19-21</p> <p>Table 19-22</p> <p>Appendix Z: Non-Indigenous Cultural Heritage Survey Report</p> <p>Section 6</p> <p>Section 9</p> <p>Table 9.1</p> <p>Table 9.2</p>
218	218.0175	Local Government	Editorial		<p>Transport: Section 18.3 identifies the transport planning frameworks, policies, plans and guidelines that are applicable to this assessment and are outlined in Table 18.2.</p> <p>There is no reference to the Darling Downs Regional Transport Plan (RTP) or the South East Queensland Regional Transport Plans in the table. The purpose of the RTP is to set out regional transport priorities and actions for developing the transport system in a way that supports regional goals for the community, economy and the environment.</p> <p>There is also no reference in the draft EIS to either the Queensland Walking Strategy 2019-2029 or the Queensland Cycling Strategy 2017-2027.</p>	<p>The draft EIS should be amended to give consideration to both the Darling Downs Regional Transport Plan and the South East Queensland Regional Transport Plans when undertaking the transport planning assessment component of the document as they both set out regional transport priorities and actions.</p> <p>Further, the draft EIS should also consider stock movements and their relationship with traffic.</p> <p>Consideration should also be given to the aims and objectives of the Queensland Walking Strategy 2019-2029 and the Queensland Cycling Strategy 2017-2027 when considering impacts during construction and operation</p>	<p>Chapter 20: Traffic, Transport and Access Section 20.2 now includes a reference and consideration of the South East Queensland Regional Transport Plan; Queensland Walking Strategy 2019-2029 and the Queensland Cycling Strategy 2017-2027.</p> <p>The Traffic and transport impact assessment has been undertaken in accordance with DTMR Guide to Traffic Impact Assessment for the construction works stage impacts to the road network. The assessment involved discussions and interactions with DTMR throughout the process. ARTC will continue to work with DTMR through future stages of the Project to ensure any road authority planning for the region is considered as part of the construction works stage.</p>	<p>Chapter 20: Traffic, Transport and Access</p> <p>Section 20.2</p>
218	218.0176	Local Government	Editorial		construction Transport Route Mapping routes on local roads to be clearly identified: The draft EIS states that the proposed primary construction routes are illustrated however Figures are not of an adequate scale to clearly define which TRC roads will be impacted. As a result, the draft EIS does not meet the requirements of TOR 10.3 (as local roads have not been mapped at a suitable scale).	The draft EIS should be amended to provide maps of the proposed primary construction routes at a suitable scale to define which TRC local roads will be impacted.	<p>As described within Appendix AA: Traffic Impact Assessment, Section 4 details the traffic generation, or "construction routes" resulting from the construction works stage of the Project. The construction activities accounted for in the TIA include:</p> <ul style="list-style-type: none"> Delivery of materials to the Project footprint Movement of workforce Transportation/collection of plant, equipment and other machinery Delivery of non-resident workforce accommodation facility cabins to site Rail-to-road diversions due to track closures. <p>These have been tabulated within Section 4 and are complimented by construction route mapping in Appendix U through to Appendix AF of Appendix AA: Traffic Impact Assessment. TRC are able to find impacted roads within both the tables and mapping available.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 4</p> <p>Appendix U-AF</p>
218	218.0177	Local Government	Editorial		<p>Short stacking - A triple design vehicle: The draft EIS states that TMR have requested storage lengths based on 42.5 m A-triple vehicles.</p> <p>The draft EIS states that A-triple vehicles do not (currently) use roads in proximity to the proposed Project alignment and has only adopted a 36.5 m Type 1 road train in its reference design.</p> <p>The draft EIS has failed to recognise that the road transport industry is increasingly using higher performance heavy vehicles for the more efficient movement of many commodities, and that A-triples are already in use elsewhere in the road network.</p> <p>The draft EIS has therefore not adequately ensured that its works are compatible with future transport corridors as required by TOR Transport Objective (c) and 11.116.</p>	The draft EIS requires updating to ensure its reference design meets the stated TMR requirement to accommodate 42.5 m A-triple vehicles wherever the proposed Project alignment is creating the potential for short stacking.	<p>The revised reference design has been developed to prevent short stacking issues with the Project's alignment. Short stacking occurs when a long vehicle does not have enough space to completely clear a rail crossing and stops while part of the vehicle is still within the rail corridor. Short stacking issues have been avoided through development of the revised reference design by maintaining a minimum separation distance between the outer rail of the Project alignment and the centreline of the nearest parallel road, in accordance with Section 5.4 of AS 1742.7:2016 and with the Manual of Uniform Traffic Control Devices Part 7: Railway Crossings (DTMR, 2019b).</p> <p>Through the greenfield sections of the Project the design caters for future provision of oversized vehicles such as the PBS2B (42 m) vehicle. All brownfield corridors have a minimum of 36.5 m short stacking for formed public roads (not including stock route road reserves).</p> <p>Where short stacking is not considered sufficient, the safety assessment in Section 5.2 of Appendix AA: Traffic Impact Assessment has recommended the designs be revisited during the detailed design stage. Design drawings showing available clearances can be provided to all road managers to demonstrate compliance with relevant standards, at the appropriate design review milestone.</p> <p>Further consultation with DTMR, GRC, TRC and the local community will confirm the location and preferred treatment for each road-rail interface. The consultation strategy for the Project is described in Appendix E: Consultation Report of the revised draft EIS.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2</p> <p>Appendix E: Consultation Report</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0178	Local Government	Traffic and Transport		<p>Transportation Task local roads not adequately addressed: The draft EIS describes 12 transport tasks (Table 18.28) impacting 61 TRC region local roads including 9 unconstructed local roads (Table 18.29).</p> <p>The draft EIS does not provide sufficient information as to the quantum of vehicle movements for each transport task, as these affect each local road.</p> <p>The draft EIS has therefore not provided sufficient information to allow an independent assessment of how existing transport infrastructure will be affected by Project transport at the local level, or prepared mitigation strategies in close consultation with relevant local governments (as required by TOR 11.113 and 11.116).</p>	Nil.	Appendix AA: Traffic Impact Assessment has been updated in accordance with the GTIA to indicate performance thresholds for assessment of traffic impact were developed with reference to Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a), GTIA and DTMR Guidelines for Assessment of Road Impacts of Development (2017). This includes the 5% threshold provided from the GTIA and other acceptable LOS values provided in the Austroads Guide to Traffic Management Part 3: Traffic Studies and Analysis (2017a) and DTMR Guidelines for Assessment of Road Impacts of Development (2017).	Appendix AA: Traffic Impact Assessment
218	218.0179	Local Government	Traffic and Transport		<p>Cycling and pedestrian access: The draft EIS notes that some of the proposed construction routes are aligned through areas/townships with moderate to high pedestrian activity and acknowledges that significant increases in heavy vehicle movements may adversely impact pedestrian movements. However, the document concludes that because these routes already facilitate a high proportion of heavy vehicle movements that any additional construction traffic to these routes is unlikely to result in a significant increase in risk to pedestrians. It is unclear how significant increases in heavy vehicle movements will not increase risk to people walking and cycling. Beyond the physical risk there is also the issue of deterring people from walking and cycling both now and in the future.</p>	<p>Serious consideration needs to be given to the Impacts on pedestrians and cyclists and the draft EIS needs to reflect the aims and intent of the Queensland Walking Strategy 2019-2029 and the Queensland Cycling Strategy 2017-2027. Further, the draft EIS should commit to a discussion with TRCs Cycling and Walking team to ensure people's ability to walk and cycling are not unduly impacted during either construction or operation of the proposed Project.</p>	<p>ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards.</p> <p>Chapter 5: Project Description Section 5.4 of the revised draft EIS provides detail on reference design including the Project alignment and road/rail interfaces. This is further supported by the Appendix design drawings Part 1 and 2. Section 20.5.9 of the revised draft EIS Chapter 20: Traffic, Transport and Access identifies the existing walking and cycling networks impacted by the proposed Project alignment and construction routes.</p> <p>During construction, all road routes will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans will require regular assessment of road safety, road conditions and traffic composition including pedestrian and cyclist usage to ensure safety for all road users. Section 5.2.2 of the Appendix AA: Traffic Impact Assessment provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p> <p>Consultation will continue with local councils regarding pedestrian crossing options during detailed design. Once agreed, changes to active transport networks will be communicated to active transport users through regular Project channels.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.4</p> <p>Chapter 20: Traffic, Transport and Access</p> <p>Section 20.5.9</p> <p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.2.2</p>
218	218.0180	Local Government	Hazard and Risk		<p>Asbestos: There are numerous references to asbestos through the chapter. It is not clear however if these comments are made on a precautionary basis or if there has been asbestos identified that needs to be managed.</p>	<p>The revised draft EIS requires updating to provide clarification regarding asbestos.</p>	<p>The potential for asbestos, including asbestos-containing materials, to be encountered within the Project footprint has been determined from the types of infrastructure that are located within the Project footprint and the age of such infrastructure. For example, Goondiwindi Regional Council has stated that sections of its potable water and sewerage pipeline network are known to be made from asbestos cement.</p> <p>A survey of infrastructure that will be removed or disturbed by the Project will be conducted prior to the commencement of construction to identify asbestos-containing materials.</p> <p>The occurrence of asbestos as a potential hazard is discussed in Section 21.5.2.3 of Chapter 21: Hazard and Risk. The commitment to undertake an asbestos survey of existing infrastructure pre-construction is made in Table 21-16 of Section 21.6.2 in Chapter 21: Hazard and Risk.</p>	<p>Chapter 21: Hazard and Risk</p> <p>Section 21.5.2.3</p> <p>Section 21.6.2</p> <p>Table 21-16</p>
218	218.0181	Local Government	Hazard and Risk		<p>Design interfaces with utilities: Table 19.12 outlines mitigation measures for interaction with utilities and issues arising as a result. However, the text fails to mention the policies and standards that the utilities themselves may have in place (e.g. TRC Policy numbers 2.04 and 2.03 which set standards/requirements for water and wastewater infrastructure.)</p>	<p>The revised draft EIS requires update to include reference to any utility owner standards or policies in this section.</p>	<p>Section 21.6.2 (Table 21-16) of Chapter 21: Hazard and Risk has been updated to state the following:</p> <p>"Designs for utility protection (modification, upgrade, diversion or realignment), will be subject to confirmation once the reference design is finalised and will be determined through further consultation with the affected utility owners and be in accordance with the following."</p>	<p>Chapter 21: Hazard and Risk</p> <p>Section 21.6.2</p> <p>Table 21-16</p>
218	218.0182	Local Government	Editorial		<p>Existing infrastructure and utilities: Second dot point re maintenance activities refers only to electricity and gas, what of other utilities i.e., telecom, water, sewerage etc.</p>	<p>The draft EIS requires update to include reference to maintenance activities and consultation with all utility owners.</p>	<p>Chapter 21: Hazard and Risk, Table 21-16 has been updated to specify that the exact methodology for utility modification, upgrade, diversion or realignment will be subject to confirmation once the Project design is finalised and will be determined through further consultation with the affected utility owners.</p>	<p>Chapter 21: Hazard and Risk</p> <p>Table 21-16</p>
218	218.0183	Local Government	Editorial		<p>Out of date legislation: The draft EIS cites the National Waste Policy 2009 and the Environmental Protection Policy 2008. Both of these regulatory policies have since been superseded.</p>	<p>Table 20.1 requires update to reflect the most recent Policies are considered and that any amendments are fully captured in the draft EIS as appropriate.</p>	<p>Draft EIS Table 20.1 "Compliance against relevant sections of the ToR" is no longer within the revised draft EIS Chapter 22: Waste and Resource Management. This is now presented in Appendix A2: Terms of Reference Cross Reference Table. Appendix A2: Terms of Reference Cross Reference Table presents the Terms of Reference as issued by the Office of the Coordinator-General and therefore still cites the National Waste Policy 2009 and the Environmental Protection Policy 2008. The revised draft EIS has been updated to include the current policies, so Chapter 22: Waste and Resource Management does not reference the superseded policies.</p>	<p>Chapter 22: Waste and Resource Management</p> <p>Appendix A2: Terms of Reference Cross Reference Table</p>
218	218.0184	Local Government	Waste and Resource Management		<p>Millmerran landfill: Table 2.3 lists Millmerran landfill as a waste management facility located in close proximity to the proposed Project. There is not enough landfill airspace available at Millmerran to receive Project waste. A waste transfer facility is planned for construction in 2021/22.</p>	<p>Millmerran landfill is not a possible destination for Project waste and should not be considered as such. The draft EIS requires amendment to reflect this.</p>	<p>Chapter 22: Waste and Resource Management, Table 22-3 Waste Management Facilities in Proximity to the Project has been amended with the following for Millmerran Waste Facility 'Limited C&D waste recycling, Limited regulated waste disposal'. ARTC will confirm available airspace with Toowoomba Regional Council as the detailed design progresses, post-EIS.</p>	<p>Chapter 22: Waste and Resource Management</p> <p>Table 22-3</p>
218	218.0185	Local Government	Waste and Resource Management		<p>Project waste: Table 20.3 identifies Enwaste Toowoomba as a skip bin hire provider. Enwaste will likely bring waste to a TRC landfill.</p>	<p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to form an agreement between the proponent, Enwaste and TRC to identify which landfill sites skip bins may be taken to. The agreement is to be made in writing at least six months prior to the commencement of any construction activities.</p>	<p>Enwaste have been identified as an appropriate facility for skip bin hire in proximity to the Project, however the selected company for this service will be determined by the contractor prior to construction commencing.</p> <p>Details of selected waste facilities for the Project within Toowoomba Regional Council area will be outlined in the Construction Environmental Management Plan (CEMP) (see Chapter 24: Draft Outline Environmental Management Plan).</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>
218	218.0186	Local Government	Waste and Resource Management		<p>Project waste: Table 20.3 identifies J. J. Richards as waste removal contractors. Some waste being transported by J. J. R. may be directed to a TRC landfill.</p>	<p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to form an agreement between the proponent, J. J. Richards and TRC to define which waste may be taken to TRC sites and which landfill site waste is to be taken to. The agreement is to be made in writing at least six months prior to the commencement of any construction activities.</p>	<p>J. J. Richards and Sons has been identified as an appropriate facility for acceptance and transfer of waste in proximity to the Project, however the selected company for this service will be determined by the contractor prior to construction commencing.</p> <p>Details of selected waste facilities for the Project within Toowoomba Regional Council area will be outlined in the Construction Environmental Management Plan (CEMP) (see Chapter 24: Draft Outline Environmental Management Plan).</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>
218	218.0187	Local Government	Editorial		<p>Project waste: Beutel & Oughtred Sons have changed ownership and is now operating as Zilch.</p>	<p>The draft EIS requires update to reflect the correct facility details.</p>	<p>ARTC acknowledges the ownership changes and has updated Chapter 22: Waste and Resource Management to reflect current ownership information.</p>	<p>Chapter 22: Waste and Resource Management</p>
218	218.0188	Local Government	Waste and Resource Management		<p>Project waste: Section 20.6.3 Table 20.6 identifies timber sleepers as one of the largest construction waste sources and an assumption that all timber sleepers will be contaminated. It also classifies the timber sleepers as Regulated Waste (regarded as contaminated) even though no information is supplied to support this classification and treated timbers (other than sawdust or shavings) are not Regulated Waste under Sch 9 of the EP Regulation. Experience on similar Projects shows that a significant proportion of timber sleepers will not be contaminated and hence will be available for reuse.</p>	<p>The assumption that all timber sleepers will be contaminated is incorrect and no data is supplied in the draft EIS to support this claim.</p> <p>The opportunities for reuse of timber sleepers needs to be explored further in the draft EIS to remove this significant waste source from the waste stream.</p>	<p>The EIS has not characterised the chemical constituents of all materials that may arise from the Project. Chapter 22: Waste and Resource Management, Table 22-10 of the revised draft EIS outlines that opportunities for re-use will be considered, if compliant with the intent of the 'End of Waste Code: Chemically Treated Solid Timber [ENEW07503218]'. The regulatory definition of a regulated waste is "(1) Regulated waste is waste that" (a) is commercial waste or industrial waste; and (b) is of a type, or contains a constituent of a type, mentioned in schedule 9, part 1, column 1.</p> <p>While schedule 9 Part 3 Division 1 of the Environmental Protection Regulation exempts treated timber as a regulated waste, this does not wholly apply to railway sleepers. Part b of the definition above includes OC/ OP pesticides, petroleum hydrocarbons and PAHs which are all commonly deposited on and can be absorbed by timber railway sleepers during operation and maintenance of the rail corridor.</p>	<p>Chapter 22: Waste and Resource Management</p> <p>Table 22-10</p>
218	218.0189	Local Government	Waste and Resource Management		<p>construction waste quantities: Table 20.6 quotes a general waste (from offices and accommodation) of 141 tonne over the construction duration of the proposed Project.</p>	<p>The draft EIS should be updated to commit to:</p> <ul style="list-style-type: none"> The appropriate management of general waste and source separation of recyclables from the general waste stream. Providing source separation bins and receptacles in the laydown areas (which already incorporate areas for Project waste). Include educational/ induction material for workers to inform and drive source separation. 	<p>As per Chapter 22: Waste and Resource Management, Section 22.6, mitigation measures pertaining to waste management have been developed for the Project in accordance with relevant legislative requirements, aligning with the 2018 National Waste Policy and the <i>Waste Reduction and Recycling Act 2011</i> (Qld) hierarchy.</p> <p>As noted in Chapter 22: Waste and Resource Management, general waste has been assessed as immaterial in volume and will be managed using standard waste management practices.</p> <p>As outlined in Chapter 24: Draft Outline Environmental Management Plan, the Contractor will prepare and implement a Construction Environmental Management Plan (CEMP), which will include waste management strategies, including:</p> <ul style="list-style-type: none"> Requirements for waste isolation, e.g. green waste, commercial and industrial (C&I) waste, construction and demolition (C&D) waste, general waste, regulated waste and recyclables, in accordance with the Environmental Protection Regulation 2008 Requirements for training, inspections, audits, corrective actions, notification and classification of environmental incidents. 	<p>Chapter 22: Waste and Resource Management</p> <p>Section 22.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
218	218.0190	Local Government	Waste and Resource Management		<p>Regulated waste disposal: (Ballast, soil (contaminated), paint and solvents, oil and chemicals).</p> <p>A detailed plan needs to be developed and agreed for isolating, storing, and transporting regulated waste, and an agreed and pre-determined destination established.</p> <p>The plan should include worker skills/ qualifications (e.g. asbestos handling), receptacles, bins etc for storage, cover if required, record keeping, notification process. TRC may accept such materials but further information on types and quantities is required.</p>	<p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to develop a regulated waste disposal plan and provide to TRC for approval at least six months prior to the commencement of any construction activities.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan, Proposed Mitigation Measures - Waste Management, outlines that the Contractor will prepare and implement a Waste Management Plan as part of the Construction Environmental Management Plan (CEMP), which will include:</p> <ul style="list-style-type: none"> Requirements for waste isolation, e.g. green waste, commercial and industrial (C&I) waste, construction and demolition (C&D) waste, general waste, regulated waste and recyclables, in accordance with the Environmental Protection Regulation 2008 Requirements for training, inspections, audits, corrective actions, notification and classification of environmental incidents. Requirements and procedures for wastes and contaminated soils or other materials to be transported and disposed in accordance with the <i>Environmental Protection Act 1994</i> (Qld). <p>A Waste Management plan will be developed as part of the Construction Environmental Management Plan (CEMP) and include measures as outlined above.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0191	Local Government	Waste and Resource Management		<p>Spoil management: While in some areas, the draft EIS states that there will be no surplus of soil, in other parts it infers that there may be between 149,000 m³ to 300,000 m³ of material classed as unsuitable fill that may be sent to a waste facility. The potential quantity is significant, equivalent to 5 hectares, between 3 m to 6 m deep.</p> <p>Goondiwindi has reportedly undertaken to receive some of this material as clean fill for day cover. However, there would be a limit to how much material can be used this way.</p> <p>TRC would not be able to receive such a large quantity at Hermitage Road (the Toowoomba Waste Management Centre (TWMC)). Other uses for the material may possibly be found in programs of rehabilitation works for retired landfills in the area. Strict soil quality assessment protocols would be required to avoid contaminated soils and a timeframe for planning and design to implement deployment of the material. Further discussion with TRC is required should this be considered a possibility.</p>	<p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to reach written agreement with TRC regarding the disposal of unsuitable fill at least six months prior to the commencement of any construction activities.</p>	<p>The Project's anticipated spoil management is outlined in Chapter 22: Waste and Resource Management, Section 22.5.2. Where practicable, spoil will be reused within the Project footprint through treatment, amelioration or drying or for offsite reuse subject to compliance with relevant legislation and policy framework, demonstration of the material as clean and written agreement with the receiver. Material that cannot be treated for appropriate reuse may be disposed offsite; however, offsite disposal to landfill will only occur as a last resort, if the material is considered unsuitable for other uses (e.g. due to geotechnical or contamination reasons).</p> <p>As above, offsite disposal is not foreseen at this stage of Project planning, however if deemed necessary, ARTC will engage with Toowoomba Regional Council to discuss further.</p>	Chapter 22: Waste and Resource Management Section 22.5.2
218	218.0192	Local Government	Waste and Resource Management		<p>Waste concrete (concrete culverts, in-situ and precast waste): The quantities Projected are 2% x (20,721 m³+ 91,076 m³ + 24,125 m³) = 2718 m³ or 6540 tonnes. Spread over the 5-year Project, approximately 1300 tonnes p.a.</p> <p>TRC is limited in the amount of concrete waste that can be practically accepted with current operations.</p>	<p>The draft EIS requires updating to provide clarity on where the proponent intends to send concrete waste and to commit to the development of a plan with confirmed agreements to receive Projected tonnages for processing (and to potentially buy back the processed material).</p> <p>The draft EIS should consider a mobile crushing plant and suitable lay-down areas for processing concrete waste without long transport involvement may be suitable.</p>	<p>ARTC acknowledges Toowoomba Regional Council's comment regarding capacity to accept concrete waste. The management of concrete waste is to be further determined as part of detailed waste management planning as outlined in Chapter 22: Waste and Resource Management, Section 22.6 Mitigation Measures.</p> <p>As the selection of the waste facility will be determined by the contractor, the Project is unable to provide further information on destinations or processes that will be adopted by the contractor, who is yet to be appointed.</p>	Chapter 22: Waste and Resource Management Section 22.6
218	218.0193	Local Government	Editorial		<p>Cumulative impact: Issues raised in relation to cumulative impacts have been provided in the technical comments above, given that detailed information relating to cumulative impact has been provided in the technical chapters. The information provided in these chapters relating to cumulative impact is overly detailed and repetitive and provides little value to the reader.</p> <p>As a result, Chapter 21 of the draft EIS provides little value in its current form given it is a compilation of the information provided in previous technical chapters. As such, cumulative impacts are not considered to be appropriately addressed, as required by TOR 7.3.</p>	<p>The draft EIS requires update to provide summary information and detail relating directly to the mitigation of cumulative impact in technical chapters. Chapter 21 should provide value and relevance regarding cumulative impacts.</p>	<p>ARTC acknowledges the issues with Chapter 23: Cumulative Impacts and how cumulative impacts is discussed throughout the EIS. Chapter 23: Cumulative Impacts and the cumulative impacts assessments have been updated in the revised draft EIS.</p>	Chapter 23: Cumulative Impacts
218	218.0194	Local Government	Outline EMP		<p>Lighting and visual amenity: TOR 11.87 requires that the draft EIS describe any proposed measures to avoid, minimise or mitigate potential impacts on landscape character and visual amenity.</p> <p>Similarly, TOR 11.96 requires that the draft EIS describe any proposed measures to avoid, minimise or mitigate potential impacts on natural values, and enhance these values, in particular, address measures to protect or preserve any threatened or near-threatened species.</p> <p>The draft EIS does not meet 11.87 or 11.96, specifically relating to description of measures to avoid, minimise or mitigate potential impacts of light at night on visual amenity and wildlife.</p> <p>Chapter 22 lacks information on key lighting issues in the following subplans:</p> <ul style="list-style-type: none"> Visual Amenity (22.11.3) does not contain definitive mitigation measures with reference to relevant standards for obtrusive lighting and guidelines for skyglow. Flora and Fauna (22.11.4) does not contain definitive mitigation measures with reference to relevant guidelines for light pollution in relation to wildlife. Hazard and Risk (22.11.12) does not contain definitive mitigation measures with reference to relevant standards for outdoor work environments at night. 	<p>Chapter 22 of the draft EIS requires updating to meet the requirements of the OCGs TOR including specifying mitigation measures related to lighting impacts on visual amenity, flora and fauna and hazard and risk.</p> <p>TRC request that the OCG impose the following condition:</p> <p>The proponent is required to ensure all lighting impacts on visual amenity, flora and fauna and hazard and risk are appropriately assessed, managed and mitigated in accordance with industry best practice to minimise risks to community and landscape amenity and ecological communities and receptors.</p>	<p>Based on consultation undertaken by ARTC with the Mt Kent Observatory, it is understood that there are no concerns regarding lighting impacts associated with the Project due to the distance of the observatory from proposed infrastructure. Lighting proposed is all essential for safety and the mitigation measures already include the minimum required standards. The consultation outcomes are detailed in Appendix E: Consultation Report.</p> <p>Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Projects Flora and Fauna assessment (Chapter 11: Flora and Fauna). There will be limited lighting associated with the construction works (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operations (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) stage of the Project. All lighting associated with the construction works stage will be short term in nature and for the operations stage, will exist as pulses of short duration (for rollingstock).</p> <p>Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, includes as part of proposed mitigations, detailed design will incorporate lighting to the minimal level required to meet operational road and rail safety requirements for the Project.</p>	Chapter 11: Flora and Fauna Sections 11.5 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report
218	218.0195	Local Government	Outline EMP		<p>Revegetation: Revegetation of the proposed railway corridor should not be based solely on the existing landscape context but on ecological grounds to reinstate native trees in an otherwise cleared landscape. For the draft EIS to not commit to revegetate in areas of previously disturbed agricultural land as a response to a treeless plain is a missed opportunity for the proponent to create a lasting green legacy for this proposed Project.</p> <p>Open agricultural land (treeless plain) should not be a cue for a minimal revegetation response from the proponent but rather be a blank canvas for significant landscape rehabilitation to occur.</p>	<p>The draft EIS should consider the extent of the proposed Project footprint as a quantifiable measure of revegetation based on the original tree species for that location. This will be particularly relevant to deep cut and fill embankments (up to 20 m) which disturb significant areas of landscape covering widths (up to 65-70 m wide) for the rail corridor alone (based on batters 1:1.5 grade). The draft EIS should include a commitment to considering revegetation in all areas affected by the proposed Project including, but not necessarily limited to, rail track service roads and access points</p>	<p>A Rehabilitation and Landscaping Management Plan will be developed as a component of the Construction Environmental Management Plan (CEMP) and will be further refined throughout each stage of the Project, where required.</p> <p>This plan includes location specific rehabilitation objectives, indicators, and success criteria, including native flora species (Chapter 24: Draft Environmental Management Plan). Revegetation of areas affected by the Project will include, but is not limited to, rail track service roads and access points particularly cut and fill embankments (up to 20 m in height or depth).</p> <p>It should be noted that a green corridor of the kind referred to in the submission will also serve as a wildlife corridor, leading to potential increases in wildlife strikes and fatalities.</p> <p>The landscape and visual impact strategy is focused primarily on assisting the Project sit within the existing rural landscape, while having regard for viewpoints including highways and lookouts. It is neither reasonable nor relevant to impose a rural landscape recovery task onto the Project.</p>	Chapter 24: Draft Environmental Management Plan
218	218.0196	Local Government	Outline EMP		<p>Rehabilitation opportunities: The draft EIS does not commit to on-site chipping of felled native vegetation to stockpile and reuse as a mulch/ compost blanket for areas requiring revegetation. Given this, it is not considered that the requirements of TOR 11.162 (assess the proposed management measures against the preferred waste management hierarchy, namely: avoid waste generation; cleaner production; reduce; recycle; reuse) have been appropriately met.</p>	<p>The draft EIS requires amendment to meet the requirements of TOR 11.162 and include on-site chipping of cleared vegetation as a sustainable reuse of the material and to also provide a seed bank for native trees (in some cases). The chipped vegetation should be stockpiled in low mounds to avoid overheating and the subsequent loss of viable seed.</p>	<p>The Draft Soil Management Plan, Soil Management Plan and Rehabilitation and Landscaping Management Plan will include suitable clearing and rehabilitation procedures during detailed design. Such procedures will be developed on a case-by-case basis and may consider mulching, site chipping, recovery of hollow logs, tree trunks and other potential fauna shelters, and seed collection, as well as reuse of excess material for works within the permanent footprint (i.e. additional landscaping). See Chapter 24: Draft Outline Environmental Management Plan.</p>	Chapter 24: Draft Outline Environmental Management Plan
218	218.0197	Local Government	Outline EMP		<p>Rehabilitation and landscaping: The draft EIS proposes that the rail corridor will be maintained free of woody vegetation as part of the rehabilitation and landscaping activities.</p> <p>It is suggested that this should exclude a suitable buffer of revegetation to be installed in areas where the fill batters are high (3 m) and space is limited beyond the toe of the batter e.g. beside a road alignment or private property.</p>	<p>The draft EIS should be updated to qualify this statement and to allow woody vegetation (trees and tall shrubs) within the rail corridors where fill embankments are high (3 m+) and planted in the lower Section of the bank only (e.g. one-third of batter length). Depending on final batter slope, a 10 m high embankment with a 67% slope (1:1.5) will be at least 33 m wide on the ground footprint. There will be sufficient space to plant out the lower sections of these batters with trees (woody vegetation) as well. This will be in areas which are not considered to pose a bushfire risk (i.e., Whetstone and Bringally State Forests).</p> <p>TRC requests that the OCG impose the following condition:</p> <p>The proponent is required to progressively rehabilitate, and landscape all impacted areas from construction activities in an appropriate manner.</p>	<p>Noted. As stated, Chapter 24: Draft Outline Environmental Management Plan, the rail corridor will be maintained, free of woody vegetation.</p> <p>Reinstatement, stabilisation, rehabilitation and landscaping of disturbed areas will be undertaken progressively as work fronts are completed. The Draft Soil Management Plan, Soil Management Plan and Rehabilitation and Landscaping Management Plan will include suitable clearing and rehabilitation procedures during detailed design. Such procedures will be developed on a case-by-case basis and will be developed in consultation with local councils and affected communities, including Traditional Owners.</p> <p>The landscaping strategy will be developed in the detailed design stage, having regard to operational requirements of the Project, as well as impact management requirements such as erosion control, overland flow and water quality management, bushfire hazards, and fauna connectivity.</p>	Chapter 24: Draft Outline Environmental Management Plan
218	218.0198	Local Government	Editorial		<p>Incomplete information: Table 22.12 is incomplete. TRC has infrastructure that will be impacted by the proposed Project (such as switchboards and pump stations) which have not been included in this Table.</p>	<p>The draft EIS should be amended to rectify Table 22.12 and to either discuss rectification works to be undertaken (e.g. physically increase infrastructure height) or include under commercial/ industrial Access to these sites should also be discussed and managed in a way as to not be adversely impacted.</p>	<p>The flood-impact objectives that have been adopted for the Project are presented in Chapter 24: Draft Outline Environmental Management Plan. These objectives address the requirements of the Terms of Reference, the additional information request issued by the Office of the Coordinator-General and the recommendations issued by the International Panel of Experts for Flood Studies. The flood-impact objectives have been used to guide the development and refinement of the reference design.</p> <p>Chapter 24: Draft Outline Environmental Management Plan, includes Existing habitable and/or commercial and industrial buildings/ premises (e.g. dwellings, schools, hospitals, shops) and sensitive infrastructure. The chapter states that sensitive infrastructure means infrastructure that is an essential service required to operate during emergency events, including water treatment facilities, telecommunications substations and electrical substations.</p>	Chapter 24: Draft Outline Environmental Management Plan

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0199	Local Government	Outline EMP		<p>Groundwater impacts: TRC would like to see some commitment to assessing cause. The draft EIS should specifically mention cause for Groundwater.</p> <p>In regard to the difference in water levels from predicted to modelled (whether good or bad), it would be appropriate for the draft EIS to include a commitment for determining the reason behind the variation and propose possible rectification works. These works should be scheduled early in the construction process in order to ensure water levels do not get worse over the short and long term.</p> <p>Further, water quality is not adequately addressed. The draft EIS does not include a commitment to improving post-construction water quality back to its original condition.</p>	<p>The draft EIS should be amended to address groundwater levels and quality and propose appropriate mitigation measures to ensure risks to levels and quality are managed to ensure that there is no significant residual impact as a result of the proposed Project.</p>	<p>Groundwater level and quality monitoring will occur as part of the Groundwater Management and Monitoring Program (GMMP). The GMMP will be assessed and updated before commencement of each Project stage (Project approvals and corridor acquisition, detailed design, construction works, operations). This program will identify impacts from the Project.</p> <p>All groundwater monitoring data will be assessed on a quarterly basis, initially, to identify trends and compare to trigger levels (baseline and pre-construction). This will also enable the Baseline GMMP to be revised, if required. Monitoring will be targeted in areas where construction activities have potential to impact on groundwater quality and/or levels.</p> <p>Where a groundwater bore is expected to be decommissioned or have access or usage impaired as result of the Project, 'make-good' measures will be agreed in consultation with the affected landowners during detailed design (Chapter 24: Draft Outline Environmental Management Plan).</p>	Chapter 24: Draft Outline Environmental Management Plan
218	218.0200	Local Government	Outline EMP		<p>Design Interfaces with utilities: Table 22.23 outlines mitigation measures for interaction with utilities and the subsequent issues arising from this interaction. The Table lists various regulatory requirements however does not include mention of the policies and standards that the utilities themselves may have in place (e.g. TRC Policy 2.03 and 2.04 for TRC which set standards/rules for water and wastewater infrastructure.)</p>	<p>The draft EIS requires update to include a reference to any standards, policies (or other) which utility owners have in place.</p>	<p>Utilities within the Project footprint will be surveyed and marked prior to the commencement of construction. Protection or relocation of utilities will be conducted in accordance with relevant legislation, Australian standards and guidelines. Designs for utility protection, where necessary, will be developed in consultation with the relevant utility owner and be in accordance with the listed Acts, regulations, guidelines, codes of practice in Chapter 24: Draft Outline Environmental Management Plan.</p>	Chapter 24: Draft Outline Environmental Management Plan
218	218.0201	Local Government	Stakeholder engagement		<p>Stakeholder engagement: Section 4.1.1 provides a brief two paragraph discussion of consultation relating to the Condamine Floodplain, the management of which is a major concern for TRC and the community, with Table 4.2 providing a summary of engagement and issues raised. In comparison, Section 4.1.2 (which discusses the McIntyre Floodplain) provides extensive detail of community consultation measures and actions taken.</p> <p>Appendix C has a very heavy focus on NSW engagement, having committed Sections 5.3 and 5.4 to an in-depth discussion of stakeholder management in relation to NSW local government and community engagement, yet failing to provide the same level of detail for Queensland (Section 5.2.3 provides a brief summary of State Government consultation).</p> <p>Section 2.2 Table 2.3 (B2G Project Key Stakeholders NSW) relates to NSW consultation and is irrelevant to the proposed Project.</p> <p>Further, it is noted that the only information provided relating to the in-depth consultation with TRC is the recording of dates, times and topics. Appendix C, Section 2 'methodology' 2.1 'aims and objectives' states that the aim of the engagement program was to 'inform stakeholders, including the broader community about the Project and the EIS process, seek stakeholder involvement in the development of the design and EIS, and report on how this input was considered.' Given the lack of discussion regarding TRC engagement and the Condamine Floodplain crossings, the proponent is not meeting its own aim (note Section 2.1 only discusses the aim of the engagement program, no objectives are provided).</p> <p>Section 3.1.5.4 (Key findings) states that 'local governments and regional businesses have talked about the strong regional development potential and enhanced connectivity that Inland Rail will bring.' It would be assumed that providing specific detail regarding LGA consultation would be provided here to support this statement.</p>	<p>The lack of information relating to consultation for the TRC area, and in particular, the Condamine Floodplain, indicates that the requirements of the TOR 7.8 to 'describe the consultation that has taken place and how the responses from the community and agencies have been incorporated into the design and outcomes of the Project' has not been achieved. This is also true for TOR 7.9, which requires the inclusion of a public consultation report (as an appendix) 'detailing how the public consultation plan was implemented and the results of the implementation' as Appendix C fails to provide any detail regarding consultation in Queensland.</p> <p>If the lack of information provided in Section 4.1.1 is a direct result of the appointment of the Flood Panel, the draft EIS should discuss this, rather than remaining silent on the issue and leaving the reader to wonder.</p> <p>The lack of information relating to the level of LGA Stakeholder Engagement, reference to the Condamine Floodplain Crossing and Inland Flood Study/ Group, and the inclusion of information relating to NSW, where the Project is NOT located in Appendix C is concerning.</p> <p>The draft EIS should be amended to include discussions with the Queensland local councils which the proposed Project traverses, including detail relating directly to how the proponent intends to address LGA concerns about community impacts, and referencing the sections of the draft EIS which provide the assessments of these impacts.</p> <p>TRC requests to have input into the review and ongoing engagement and consultation plan including the program of consultation.</p>	<p>The revised draft EIS, Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report detail the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>The flood modelling conducted for the Project was reviewed by the Independent International Expert Panel for Flood Studies, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Independent Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment.</p> <p>In addition, the Independent Flood Panel discussed within their Final Report that the current Flood Impact Objectives (FIOs) should be reviewed to be more consistent with those adopted along the Narrabri to North Star alignment. As part of additional assessment and studies conducted for the revised draft EIS, ARTC has assessed all local catchments against the new Flood Impact Objectives (FIOs), which determine the acceptable parameters within which the Project can change or increase the existing flood conditions, including afflux, time of inundation, velocity, hazard and flow directions. In October 2022, ARTC undertook consultation with all landowners that were shown to have the highest exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property.</p> <p>Community engagement has influenced the development of the reference design. The Condamine floodplain crossing design has been updated to incorporate community feedback and has been reviewed following recent major flood events.</p> <p>Community feedback, along with input from the Independent International Panel of Experts for Flood Studies has resulting in the following key changes:</p> <ul style="list-style-type: none"> extending the proposed bridge over the North Branch by approximately 250 m north moving the proposed Yandilla rail bridge further south and combining with the proposed Grasstree Creek bridge increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. <p>ARTC will continue to engage with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered.</p> <p>Consultation with impacted stakeholders will continue through detailed design of the Project to ensure that alterations to the design and its impacts are communicated back to landowners. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event, in line with recommendations from the Independent International Panel of Experts for Flood Studies.</p>	Chapter 6: Stakeholder Engagement Appendix E: Consultation Report Section 5.3
218	218.0202	Local Government	Landscape and Visual Amenity		<p>Visual impact: TOR 11.85 requires that the draft EIS 'Describe and illustrate the visual impact of the construction and operation of the Project and 'views should be representative of public and private viewpoints, including places of residence, work and recreation.</p> <p>The draft EIS does not meet the requirements of 11.85. Appendix I fails to adequately discuss key matters (as per Chapter 9) and reference appropriate and latest standards/guidelines. See previous comments above regarding:</p> <ul style="list-style-type: none"> Sky glow Communities at night (obtrusive light) Outdoor work environments. 	<p>Appendix I should be modified as required to meet TOR 11.85.</p>	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment.</p> <p>Private dwellings have not been directly assessed within the LVIA (i.e. they are considered with reference to nearby public viewpoints) since isolated private views are typically afforded lower significance in LVIA. However, it is considered that an adequate number of viewpoints have been included to assess representative impacts suitable for EIS stage. As part of the Project's mitigation measures and controls, ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p> <p>Several additional viewpoints have been included in the revised draft EIS. This includes an additional viewpoint assessment and visualisation (Viewpoint 4) assessing potential impacts within Yelarbon with regards to the GrainCorp silo artwork viewing area and the potential provision of noise walls in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and managers. An assessment of each of the proposed construction facilities and miscellaneous site facilities has also been included in the Appendix K: Landscape and Visual Impact Assessment Section 8.2 and 9.1.</p> <p>A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K). The reference to AS 4282 has also been updated.</p> <p>In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment). This assesses potentially affected sensitive receptors, and discusses potential impacts associated with train headlights and active level crossings.</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. In particular, the revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.10 Section 6 Section 8.2 Section 9 Section 9.1 Section 9.2 Section 11 Section 11.2 Appendix 3: Obtrusive Lighting Assessment
218	218.0203	Local Government	Flooding		<p>Flooding: The draft EIS makes no acknowledgement of potential impacts to infrastructure other than surface infrastructure as a result of flooding events (either resulting from natural inundation, or as a result of the proposed rail alignment crossing the Condamine Floodplain).</p>	<p>The draft EIS requires amendment to consider flooding impacts to buried assets that could become exposed and damaged by changes to overland flow. TRC request that the OCG impose the following condition:</p> <p>All recommendations from the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland review are to be addressed and implemented into the proponents commitments for the proposed Project.</p>	<p>Noted. ARTC has no objection to the proposed condition however acknowledge that it is the discretion of regulators to determine this.</p> <p>The Flood Sensitive Receptor database has been reviewed to include additional public utility assets such as STPs, Electric Substations etc. as part of the revised draft EIS. If TRC are concerned about any other specific TRC assets not reported on please let us know so we can include those assets.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in the "Additional modelling items to be considered in detailed design" Section of each catchment (Sections 5 to 17) of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 5 - 17
218	218.0204	Local Government	Groundwater		<p>General comment: Appendix R does not include an assessment of the impact of work camps and depots on groundwater. For example, the assessment fails to mention the location of water supply, stormwater, wastewater disposal (including washdowns).</p>	<p>Appendix R requires update to include an assessment of the impacts of work camps and depots on groundwater.</p>	<p>As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing see Chapter 5: Project Description, Section 5.6.24. Currently the hierarchy of water supply source preferences prioritises non-potable sources for construction water (i.e. dust suppression) to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, trading or purchasing of existing allocated entitlements will be pursued in the first instance through a qualified water broker (Chapter 5: Project Description Section 5.6.24). The extracted groundwater volumes shall therefore be within the existing licencing limits that are calculated by the State to protect groundwater resources. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements.</p> <p>Preliminary consideration of non-resident workforce accommodation facilities has been included in revised draft EIS Chapter 5: Project Description Section 5.6.4. However, the detailed design and assessment of non-residence workforce accommodation will be completed as part of the detailed design stage. Stormwater and wastewater management and disposal will be subject to relevant state and local requirements and impact assessment (including impacts to groundwater) must be completed as part of the approvals process. Table 7.1 of Appendix U: Groundwater Technical Report presents the water quality requirements for the Project including non-resident workforce accommodation.</p>	Chapter 5: Project Description Section 5.6.4 Section 5.6.24 Appendix B5: Construction Water Requirements Appendix U: Groundwater Technical Report Table 7.1
218	218.0205	Local Government	Editorial		<p>Mapping colour scheme: The mapping legend requires modification to make it easy for the reader to identify between National Parks and State Forest.</p>	<p>The draft EIS requires update to make it easy for the reader to interpret maps.</p>	<p>The colour scheme of Figure 1-1 in Appendix U: Groundwater Technical Report has been amended to improve clarity.</p>	Appendix U: Groundwater Technical Report Figure 1-1
218	218.0206	Local Government	Editorial		<p>Crossing loops: Proposed crossing loops not detailed.</p>	<p>The draft EIS requires update to provide the location of crossing loops (including illustrating on maps as appropriate) and to analyse any additional impacts as a result of proposed crossing loops.</p>	<p>Chapter 5: Project Description, Section 5.4.3 includes the five proposed crossing loops including a diagram of a typical layout of a crossing loop as well as the location of each crossing loop (by chainage). Crossing loops are also illustrated on the maps within Appendix B1: Design Drawings.</p>	Chapter 5: Project Description Section 5.4.3 Appendix B1: Design Drawings

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0207	Local Government	Groundwater		Lack of modelling: The impacts of bridge structures on groundwater has not been modelled. By this point in the draft EIS there has been nothing to state the depth of the piling works and whether there will be an impact to groundwater. The depths would be used to determine if further assessment is required and to demonstrate that further assessment is or is not required.	The draft EIS requires amendment to appropriately model and discuss the potential impact of bridge structures on groundwater as a result of proposed Project activities.	Consideration of impacts to groundwater resulting from the bridge structures is presented in Section 8.1 of Appendix U: Groundwater Technical Report, including estimates of groundwater extraction as part of the piling process. Bridge and piling groundwater impact information has been brought into the main body of the revised draft EIS Chapter 15: Groundwater Section 15.6 and Table 15-17 and 15-18, as well as Appendix U: Groundwater Technical Report, Section 7.1.1 and 7.2.1.	Chapter 15: Groundwater Section 15.6 Table 15-17 Table 15-18 Appendix U: Groundwater Technical Report Section 7.1.1 Section 7.2.1
218	218.0208	Local Government	Editorial		Summary of springs: Some of the springs would be expected to have a higher than "low" potential GDE. This information is not clearly illustrated on mapping.	The draft EIS requires amendment to include mapping which shows the location of these springs.	The summary of springs in the revised draft EIS can be found in Appendix U: Groundwater Technical Report, Table 4.18. These springs are not seen on Figure 4-27 as they are outside the extent viewable on the figures.	Appendix U: Groundwater Technical Report Table 4.18 Figure 4-27
218	218.0209	Local Government	Editorial		Incongruity between text and figures: Section 4.5 states a maximum elevation of 595 m (near Southbrook) but Figures 4.1a through 4.1d do not indicate this. Figures 4.1d (which covers the Southbrook area) has a high point contour of 400 m.	The draft EIS requires amendment to include the contours which appear to be missing and that would show the higher elevations as stated in Section 4.5.	Figure 4.1a-d in Appendix U: Groundwater Technical Report only labels contours up to 400 m due to the extent that is used to display the Figure and the density of contours above this height, which are displayed, however are not labelled. Figure 4: Landform and hydrological context in Appendix K: Landscape and Visual Impact Assessment Technical Report displays the landform in the digital elevation method and shows the elevation up to 750 m AHD.	Appendix K: Landscape and Visual Impact Assessment Technical Report Figure 4 Appendix U: Groundwater Technical Report Figure 4.1a-d
218	218.0210	Local Government	Editorial		Regional salinity: Areas of high and moderate salinity risk have been identified as present within the proposed Project footprint. However, this risk has not been addressed in Appendix R.	The draft EIS requires update to appropriately discuss and address salinity risk.	Regional salinity in the existing environment has been discussed (see Appendix U: Groundwater Technical Report, Section 4.7.3). As mentioned in Section 8.1 (Table 8.1), groundwater sampling was conducted at the 37 monitoring bores installed for the collection of baseline water quality and assessment of the salinity parameters is ongoing. The data will be used to establish baseline conditions and water quality objectives for the Project.	Appendix U: Groundwater Tech Report Section 4.7.3 Section 8.1 Table 8.1
218	218.0211	Local Government	Groundwater		Section 8 general comments: Section 8 of Appendix R does not meet the requirements of TOR 5.1 as: <ul style="list-style-type: none">Proposed mitigation measures for impacts to existing bore water supplies are in general terms and do not appropriately address specific issues.Table 8.1 provides total volume of construction water for the proposed Project. Construction water usage may have been better represented in order to accurately evaluate water requirements for the construction of the proposed Project.Without providing specific details regarding existing groundwater allocations versus the ability to use those allocations, Section 8 remains vague.Mitigation measures for impacts to existing drinking water supplies are not appropriately addressed.	The draft EIS requires update accordingly and in order to meet the requirements of TOR 5.1.	Groundwater predictive modelling conducted for the revised draft EIS indicates drawdown will be localised around the vicinity of the deep cuts where no registered bores have been identified. No regional groundwater drawdown is anticipated. ARTC has undertaken a bore survey to identify any unregistered bores that may be impacted from the Project (Chapter 15: Groundwater, Section 15.6.2). ARTC will continue to engage with groundwater users/landholders to determine an appropriate make-good mitigation strategy for impacted bores on a case-by-case basis (Chapter 15: Groundwater, Section 15.7.4). As part of ARTC's construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing (Chapter 5: Project Description, Section 5.6.24). Currently the hierarchy of water supply source preferences prioritises non-potable sources for construction water (i.e. dust suppression) to minimise impacts to communities and water users (Chapter 5: Project Description, Section 5.6.24). Further, the use of groundwater for construction water is not a preferred water source for the Project. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements Report. The revised draft EIS has been updated with information as applicable, including how and when specific issues will be addressed.	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.7.4 Table 15-20 Appendix B5: Construction Water Requirements Report
218	218.0212	Local Government	Groundwater		Impacts to groundwater: Section 1.7 of Appendix R states that the impact assessment area has been established to delineate the spatial extent for the groundwater assessment generally defined as the area within a one-kilometre (1 km) distance from the centreline of the proposed Project alignment. The 1 km distance from the centreline is considered to be an inadequate distance to appropriately assess groundwater characteristics and identify impacts to groundwater from the proposed Project. Groundwater impacts may surface a substantial time after the construction of the proposed Project, and the draft EIS should acknowledge this. Further, mitigation measures are not addressed well enough. Comments like makes good do not identify the specific groundwater impacts as a result of the proposed Project or identify the specific and appropriate mitigation measures to be adopted. Section 8 does not provide any specific detail regarding impacts from the proposed Project to the water supply at regional township TRC bores/drinking water infrastructure e.g. the Millmerran water supply is not sufficient to provide the town with water and construction water for the proposed Project. As a result, the draft EIS does not meet the requirements of TOR 5.1.	In regional townships (such as Millmerran and Brookstead), TRC water supplies are 100% depends on the groundwater bores located adjacent to the proposed Project alignment. There seems to be no specific assessment provided in the draft EIS which directly addresses impacts on these community drinking water bore supplies. Mitigation measures to maintain drinking water supply should be identified and described prior to the community experiencing adverse impacts to groundwater supply as a result of proposed Project activities (such as cuts/fills). The draft EIS requires amendment to appropriately assess and model impacts to groundwater with more specific references and proposed commit to appropriate mitigation measures to overcome any impacts to community water supplies as a result of the Project activities, including the consideration of alternate construction water supplies. As impacts to groundwater could be experienced by the community a substantial time after the construction of the proposed Project, TRC requests that the OCG impose the following condition: The proponent is required to commit to appropriately addressing groundwater impacts to regional townships resulting from proposed Project activities and to adequately reflect the time scale during which these adverse impacts may be experienced and to provide appropriate mitigation measures to ensure these impacts are managed to ensure that there is no significant residual impact to groundwater from the proposed Project.	As part of ARTC's construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing (Chapter 5: Project Description, Section 5.6.24). Currently the hierarchy of water supply source preferences prioritises non-potable sources for construction water (i.e. dust suppression) to minimise impacts to communities and water users (Chapter 5: Project Description, Section 5.6.24). Further, the use of groundwater for construction water is not a preferred water source for the Project. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements Report. Groundwater predictive modelling conducted for the revised draft EIS indicates drawdown will be localised around the vicinity of the deep cuts and limited to the construction works stage. No regional groundwater drawdown is anticipated. The inputs and results of the numerical predicative groundwater modelling has been reviewed as part of the revised draft EIS (Chapter 15: Groundwater, Section 15.6.2). The model has been revised to reflect the design changes and to include additional data collected. The mitigation measures detailed in Chapter 15: Groundwater, Section 15.7 have been reviewed and revised to reflect the current understanding of potential impacts to groundwater relating to the Project.	Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Section 15.6.2 Section 15.7 Table 15-20 Appendix B5: Construction Water Requirements Report
218	218.0213	Local Government	Editorial		Crossing loops: The draft EIS does not detail proposed crossing loops.	The draft EIS should be amended to provide locations and maps of crossing loops and to analyse any additional impact in relation to these.	Chapter 5: Project Description, Section 5.4.3 includes the five proposed crossing loops including a diagram of a typical layout of a crossing loop as well as the location of each crossing loop (by chainage). Crossing loops are also illustrated on the maps within Appendix B1: Design Drawings.	Chapter 5: Project Description Section 5.4.3 Appendix B1: Design Drawings
218	218.0214	Local Government	Editorial		Topography: The maximum elevation is stated as being 595 m near Southbrook, however Figures 4.1a-d does not indicate this. Figures 4.1d (which covers the Southbrook area) has a high point contour of 400 m. There appears to be contours missing that would show the higher elevations as stated in Section 4.5.	The draft EIS requires amendment to include the missing contours.	Figure 4.1a-d in Appendix U: Groundwater Technical Report only labels contours up to 400 m due to the extent that is used to display the Figure and the density of contours above this height, which are displayed, however are not labelled. Figure 4: Landform and hydrological context in Appendix K: Landscape and Visual Impact Assessment Technical Report displays the landform in the digital elevation method and shows the elevation up to 750 m AHD.	Appendix K: Landscape and Visual Impact Assessment Technical Report Figure 4 Appendix U: Groundwater Technical Report Figure 4.1a-d
218	218.0215	Local Government	Groundwater		Impacts of work camps on groundwater: Appendix R does not include an assessment of the impact proposed work camps and depots will have on groundwater. For example; water supply, stormwater, wastewater disposal (including washdown) and locations should all be considered.	Appendix R requires updating to consider and appropriately mitigate these impacts.	As described in Section 5.6.3 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none">The proximity of the accommodation facilities to likely construction sites for fatigue management purposes (maximum desirable commute of 30 mins)Land tenure, ownership, road access, and area of the siteProximity to supporting infrastructure and services, such as water and electricityLikelihood of social, environmental and heritage related impactsPotential for planned future developments. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised by the Contractor during the detailed design stage of the Project. As mentioned in Section 3.4.5 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing. Table 7.1 of Appendix U: Groundwater Technical Report presents the water quality requirements for the Project including non-resident workforce accommodation.	Chapter 5: Project Description Section 5.6.3 Appendix U: Groundwater Technical Report Table 7.1
218	218.0216	Local Government	Waste and Resource Management		Toowoomba Waste Management Centre listed: It is correct that the TWMC is able to accept materials however where there are likely to be significant quantities disposed, prior discussions with TRC are required in order to ensure that the site is capable of managing the material.	The draft EIS requires update to include provisions for prior discussions with the waste facility owner/ operator where there are significant quantities to be disposed in order to confirm that materials can be accepted.	ARTC acknowledges Toowoomba Regional Council's request for further discussions regarding waste management and designated facilities. Preliminary discussions have been undertaken between ARTC and potential receivers of materials arising from the Project. These consultations will be ongoing and will inform more detailed planning for the Project as it progresses through detailed engineering and execution stages.	N/A
218	218.0217	Local Government	Waste and Resource Management		Waste Levy: The draft EIS indicates that unsuitable spoil may be exempt from the waste levy and be acceptable as clean fill for day cover at the landfill.	The proponent should note that the application of the waste levy on materials is required by the Waste Reduction and Recycling Act 2011 (and Regulation). It cannot necessarily be assumed that all spoil will be exempt, particularly when working near previously disturbed lands. Normal published gate fees at waste facilities will apply at the time of disposal.	Chapter 22: Waste and Resource Management, Section 22.2, Table 22-1 states that under new laws provided for Queensland, levy zones and non-levy zones are stipulated. Under the new laws, waste disposal from the Project will be subject to a fee, as the Project is located within a levy zone. It is anticipated that some waste types will be automatically exempt from the levy under Section 26 of the <i>Waste Reduction and Recycling (Waste Levy) Amendment Act 2019</i> [Qld], including clean earth.	Chapter 22: Waste and Resource Management Section 22.2 Table 22-1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0218	Local Government	Editorial		Robust commitments required from proponent: in accordance with changes to the draft EIS proposed above, Appendix Z will require update accordingly.	Appendix Z requires update to include the relevant and robust commitments provided by the comments above.	Chapter 24: Draft Outline Environmental Management Plan have been updated as part of the revised draft EIS and contain all the mitigations measures, monitoring and reporting requirements, management plans, and commitments proposed throughout the EIS.	Chapter 24: Draft Outline Environmental Management Plan
218	218.0219	Local Government	Landscape and Visual Amenity		Lighting commitments: TOR 11.87 requires that the draft EIS "describe any proposed measures to avoid, minimise or mitigate potential impacts on landscape character and visual amenity. Similarly, TOR 11.96 requires that the draft EIS 'describe any proposed measures to avoid, minimise or mitigate potential impacts on natural values, and enhance these values' in particular, address measures to protect or preserve any threatened or near-threatened species. The draft EIS does not meet TOR 11.87 or 11.96 as a proponent commitment that would recognise the need for measures to avoid, minimise or mitigate potential impacts of light at night on visual amenity and wildlife has not been provided. Appendix Z does not include any lighting commitments under the specific Project matters of: <ul style="list-style-type: none"> ▶ Visual amenity ▶ Flora and fauna ▶ Hazard and risk. 	Appendix Z should be updated to include specification of commitments related to minimising negative impacts arising from lighting in these sections: Visual Amenity, Flora and Fauna, Hazard and Risk.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. An assessment of each of the proposed construction facilities and miscellaneous site facilities has also been included in the Appendix K: Landscape and Visual Impact Assessment Section 8.2. Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. The qualitative lighting impact assessment within the LVIA report has been updated to include reference of potential impacts associated with transient lighting due to train headlights (refer Section 9: Lighting Impact Assessment of Appendix K: Landscape and Visual Impact Assessment). The reference to AS 4282 has also been updated. In addition, an Obtrusive Lighting Assessment (OLA), a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Obtrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment). With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations. Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. In particular, the revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.23 and Appendix 3: Obtrusive Lighting Assessment for further details of Appendix K: Landscape and Visual Impact Assessment. Impacts of lighting on wildlife, as well as livestock and poultry, are not part of the Landscape and Visual Impact Assessment. Lighting impacts to native fauna are addressed separately within the Border to Gowrie Flora and Fauna assessment as detailed in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the construction works stage will be short term in nature and for the operations stage, will exist as pulses of short duration (for rollingstock). Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system. Negative impacts arising from Project lighting will be minimised by the mitigation measures outlined in Appendix K: Landscape and Visual Impact Assessment. In particular, the following commitment in relation to visual amenity has been stated: "while ensuring the construction and operational safety is not compromised, Australian Rail Track Corporation (ARTC) would seek to minimise light emissions from the Project (during construction and operation) by select placement, configuration and direction of lighting to reduce potential impacts to the surrounding environment, where practicable, in accordance with Australian Standards." In addition, ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.10 Section 6 Section 8.2 Section 9 Section 9.2 Section 11 Section 11.2 Appendix 3: Obtrusive Lighting Assessment Chapter 11: Flora and Fauna
218	218.0220	Local Government	Flora and Fauna	Survey effort/ field investigation data	It is in the public interest that the draft EIS be updated to acknowledge the local and environmental importance of patches of remnant vegetation and commit to providing an appropriate mechanism to allow their retention and protection from direct impact by the proposed Project and should specifically commit to the protection of the areas mentioned in this comment. TRC requests that the OCG impose the following condition: 'The proponent is required to acknowledge and protect patches of remnant vegetation and provide an appropriate mechanism to allow their retention and protection from adverse impacts relating to proposed Project activities.'	Remnant vegetation: Scrutiny of the design drawings for the proposed Project identifies likely impacts to remnant vegetation worthy of retention for ecological and cultural importance. This includes vegetation within road and rail reserves as well as patches of remnant vegetation. These are generally smaller isolated areas which are not currently mapped but should be identified through site survey, and includes: <ul style="list-style-type: none"> ▶ Gore Highway – remnant roadside trees; ▶ Southbrook west of Geitz Road - Koala habitat trees; ▶ Murlaggan – remnant patches in heavily cleared areas; ▶ Brookstead – Ware Road trees along railway; ▶ Condamine River – significant remnant vegetation at both crossings; ▶ Grasstree Creek remnant riparian vegetation; ▶ Owen's Scrub Road; ▶ Back Creek - remnant riparian vegetation; ▶ Bringally Creek – remnant riparian vegetation; and ▶ Native Dog Creek – remnant riparian vegetation. As a result, the draft EIS fails to meet the requirements of TOR 5.1.	Where impacts cannot be avoided (e.g. clearing of remnant vegetation or habitat for a threatened species), mitigation and management measures will be implemented (Chapter 11: Flora and Fauna). ARTC will minimise clearance of remnant vegetation to that necessary for construction, and ensure all necessary permits and approvals are in place prior to the commencement of construction. As per revised draft EIS Chapter 11: Flora and Fauna, Greenfield components of the Project have been aligned to minimise the extent of impact to remnant vegetation, and the number of watercourses traversed by the Project. Clearing of remnant vegetation will be restricted to the minimum required to enable the safe construction, operation and maintenance of the rail corridor, including minimising the disturbance of sensitive areas such as: <ul style="list-style-type: none"> ▶ Habitat for 'critically endangered', 'endangered' and 'vulnerable' flora and fauna species ▶ Endangered' and 'of concern' REs and HVR ▶ Riparian vegetation ▶ Steep slopes ▶ Along riverbanks. The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> ▶ Ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ Multi-criteria analysis (MCA). As described in Section 2.8 and Section 2.9 of Chapter 2: Project Rationale, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in EIS, Appendix E: Consultation Report), and the findings of environmental and engineering investigations. Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 5.1 Section 5.10
218	218.0250	Local Government	Traffic and Transport	operational traffic	Project access roads TRC approval required for access to local roads: The draft EIS identifies 11 locations within the TRC region where Project access roads are proposed to be constructed from local roads to facilitate access to laydowns and construction sites, with most of these being retained for future rail maintenance access. The draft EIS acknowledges that the Department of Transport and Main Roads (TMR) approval will be required for access roads from State roads but it fails to recognise local government approval is also required for Project access from local roads. As a road authority, TRC has statutory powers to manage works on roads and to impose reasonable and relevant conditions in relation to those works. Further to this, the mitigation strategies provided were not prepared in close consultation with relevant local governments (TRC) (as required by TOR 11.116).	The draft EIS should be updated to acknowledge that local government approval is required for Project access from local roads, provide detail regarding appropriate mitigation measures for Project access from local roads, and describe how these mitigation measures were developed in consultation with TRC. The proponent should work towards reaching agreement with TRC no less than six months prior to the commencement of construction. TRC requests that the OCG impose the following condition: The proponent is required to consult with TRC regarding all aspects of the construction and location of Project access roads and to reach written agreement with TRC in relation to this access at least six months prior to the commencement of any construction activities. Further to this, the proponent must also develop suitable plans for Council's consideration which addresses, without limitation, matters such as: <ul style="list-style-type: none"> ▶ Prior approval for use of local roads for any and all parts of the Project ▶ Relevant road impact assessments and safety audits ▶ Condition and operational assessments before, during and post-construction ▶ Demonstrating how safety of all other road users (including travelling public and pedestrians) will be maintained/ managed on public roads during construction ▶ How local roads will be adequately maintained during construction to a safe and reasonable standard for all activities being undertaken (at no cost to Council) All roads and road-related infrastructure used for any part of the Project, will only be accepted as returned to Council if it is in a condition at least the same as, or better than, the condition the road or road-related infrastructure was in prior to the commencement of any part of the Project.	Once the construction routes have been confirmed at the next stage of the Project, relevant road authorities would be consulted and any alternate construction routes agreed on prior to finalising the Traffic Management Plan. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority. Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 6.2 contains a summary of commitments made by ARTC and the Contractor within Appendix AA: Traffic Impact Assessment. Key relevant commitments include: <ul style="list-style-type: none"> ▶ ARTC will draft and finalise a Road use Management Plan for construction activities. The RUMP will be developed in consultation with the relevant department officers prior to construction commencing. ▶ Ensure confirmed road alterations and resulting diverted traffic is accommodated sufficiently and the operations of existing Intersection s and road links are not worsened. ▶ ARTC will consult, discuss and agree on approach with road authorities where assessments flag existing issues to determine appropriate mitigation measures provided by the Project. The agreed arrangements to deal with impacted pavements as a result of construction will exist between the Road Manager and ARTC.	Appendix AA: Traffic Impact Assessment Section 6.2
218	218.1500	Local Government	Groundwater		Lack of consideration for localised risk: The magnitude of significance appears to be focused on the overall proposed Project and does not consider localised risk.	The draft EIS should be amended to appropriately consider the localised risk for the large cuttings, as this risk would be higher than that currently reported.	The impact assessment methodology in Appendix U: Groundwater Technical Report, Section 3.2 defines the impact magnitude, durations/timelines, and sensitivity that inform the significance assessment. Table 3.2 in Appendix U: Groundwater Technical Report details the magnitude of impact classifications adopted and are based on the size/distribution of the impact (e.g. extremely localised to widespread impacts). Predictive groundwater modelling was conducted for deep cuts likely to intersect groundwater and indicated only localised drawdown around the vicinity of select deep cuts which intersect groundwater (see Appendix U: Groundwater Technical Report, Section 6.3.5). This modelling focused on localised risk.	Appendix U: Groundwater Technical Report Section 3.2 Section 6.3.5 Table 3.2
219	219.0001	Private	Traffic and Transport	Infrastructure crossings/ interaction	Concern that the passing loops for 1.8 km long trains are located within 1 km of Owens Scrub Road and that the passing loops for 3.6 km long trains will extend across Owens Scrub Road in the future	Ensure the location of the passing loops meets the Design specifications in Section 5.2.1 to ensure a) no level crossings across loops and b) sufficient road vehicle sighting distance from the loops	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades. This replaces the previously proposed active level crossing within the draft EIS. The new crossing loop location is approximately 2.5 km east of Owen Scrub Road, which is now a grade separated road-rail interface. The new crossing loop location is approximately 2.5 km east of Owen Scrub Rd and meets all performance specifications as outlined in Table 5-4 in Chapter 5: Project Description of the revised draft EIS. Therefore no delay for road traffic at this location is anticipated. The revised draft EIS Chapter 5: Project Description, Section 5.2 describes the operation of the double-stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Table 5-4 Section 5.2
219	219.0002	Private	Traffic and Transport	Level crossing	The EIS is contradictory and describes the treatment for Owens Scrub Road to be active in Appendix T, Section 2.4 and passive in Section 5.2.7.1	Clarify the level crossing treatment for Owens Scrub Road	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades Appendix AA: Traffic Impact Assessment. This replaces the previously proposed active level crossing within the draft EIS.	Appendix AA: Traffic Impact Assessment
219	219.0003	Private	Traffic and Transport	Level crossing	The close proximity of the Yandilla passing loop to Owens Scrub Road will result in trains decelerating over Owens Scrub Road and increase level crossing delays for road traffic from 3 minutes to up to 5 minutes.	ARTC needs to be challenged about the construction, operation and future extension of this crossing loop and they need to acknowledge these design implication and deficiencies and demonstrate what mitigation measures - if any are possible - they will undertake to address this major issue.	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades. This replaces the previously proposed active level crossing within the draft EIS. The new crossing loop location is approximately 2.5 km east of Owen Scrub Road, which is now a grade separated road-rail interface. The new crossing loop location is approximately 2.5 km east of Owen Scrub Rd and meets all performance specifications as outlined in Table 5-4 in Chapter 5: Project Description of the revised draft EIS. Therefore no delay for road traffic at this location is anticipated. The revised draft EIS Chapter 5: Project Description, Section 5.2 describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Section 5.2 Table 5-4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
219	219.0004	Private	Traffic and Transport	Level crossing	Owens Scrub Road is very important to local and regional people and it is unacceptable to contemplate that emergency service vehicle could be delayed by a slow moving train across the level crossing.	ARTC needs to be challenged about the construction, operation and future extension of this crossing loop and they need to acknowledge these design implications and deficiencies and demonstrate what mitigation measures - if any are possible - they will undertake to address this major issue.	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades, Appendix AA: Traffic Impact Assessment. This replaces the previously proposed active level crossing within the draft EIS. The new crossing loop location is approximately 2.5 km east of Owen Scrub Road, which is now a grade-separated road-rail interface. The new crossing loop location is approximately 2.5 km east of Owen Scrub Rd and meets all performance specifications as outlined in Table 5-4 in Chapter 5: Project Description of the revised draft EIS. Therefore no delay for road traffic at this location is anticipated. The revised draft EIS Chapter 5: Project Description, Section 5.2 describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Section 5.2 Table 5-4 Appendix AA: Traffic Impact Assessment
219	219.0005	Private	Traffic and Transport	Level crossing	Concerns that the Yandilla Passing loop could extend over Owens Scrub Road and result in up to 5 hours of road closure per day	ARTC needs to be challenged about the construction, operation and future extension of this crossing loop and they need to acknowledge these design implications and deficiencies and demonstrate what mitigation measures - if any are possible - they will undertake to address this major issue.	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades, Appendix AA: Traffic Impact Assessment. This replaces the previously proposed active level crossing within the draft EIS. The new crossing loop location is approximately 2.5 km east of Owen Scrub Road, which is now a grade separated road-rail interface. The new crossing loop location is approximately 2.5 km east of Owen Scrub Rd and meets all performance specifications as outlined in Table 5-4 in Chapter 5: Project Description of the revised draft EIS. Therefore no delay for road traffic at this location is anticipated. The revised draft EIS Chapter 5: Project Description, Section 5.2 describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Section 5.2 Table 5-4 Appendix AA: Traffic Impact Assessment
220	220.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project. 	The submitter raised concerns that the EIS doesn't meet the objectives of the land Section of the TOR: Development should be designed and operated to:(a) improve environmental outcomes(b) contribute to community wellbeing(c) contribute to social, economic and environmental sustainability(d) mitigate impacts to the natural landscape and visual amenity.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
220	220.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The submitter raised concerns that the future views don't consider the noise barriers.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
220	220.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As with all prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and vibration assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
220	220.0006	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community.</p> <p>ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders.</p> <p>The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board.</p> <p>ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records.</p> <p>ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p> <p>The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness.</p>	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners' occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
221	221.0002	Private	Air Quality		The submitter is concerned about dust pollution from preparing, construction, and operational use and maintenance of the rail.	Relocate rail to densely populated area. Building the alignment between Melbourne and Gladstone will make the Inland Rail a great success.	<p>The landholder's dwelling has been considered in the air quality assessment for the Project. In the dispersion model developed for the assessment of the operations stage in Appendix F of Appendix R: Air Quality Technical Report, the landholder's dwelling has been represented by sensitive receptor R825. The landholder's dwelling is located less than 50 metres from the edge of the permanent footprint for the Project.</p> <p>The construction and operation of the Project will result in emissions to air. However, the assessment of the construction works and operations stages has determined that the impact of air emissions to sensitive receptors, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures.</p> <p>Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). The assessment of construction has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households) (Chapter 12: Air Quality, Section 12.5.1). The assessment has also recommended mitigation measures including for preparation and maintenance activities to reduce construction dust emissions and minimise the potential for significant impacts (Section 12.6 of Chapter 12: Air Quality). With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts for impacts to health and nuisance/amenity will be low or negligible.</p> <p>Based on the results of the air quality assessment, the proposed alignment will not result in significant air quality impacts to sensitive receptors, and an alternate alignment is not required on the basis of air quality reasons. Further information on the results of the assessment of the construction works and operations stage assessments on impacts to air quality is presented in Section 12.6 of Chapter 12: Air Quality, Section 12.6 of Chapter 12: Air Quality presents the mitigation measures which have been recommended for the construction works and operations stages of the Project. These mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan, and, when implemented, impacts to sensitive receptors are not expected to be significant. The recommended mitigation measures are considered appropriate for the Project, and a shade line is further mitigation which is not required. It is also noted that shade lines are difficult to maintain, and are less practical for the mitigation of construction dust. The scope of the revised draft EIS is to assess the route selected by the Australian Government is detailed in Chapter 2: Project Rationale.</p>	Chapter 2: Project Rationale Chapter 12: Air Quality Section 12.5.1 Section 12.6 Section 12.8 Appendix R: Air Quality Technical Report Appendix F Chapter 24: Draft Outline Environmental Management Plan
222	222.0001	Private	Traffic and Transport		The ambulance, police and vet would be delayed with the rail service line.	Overhead bridge on road pass.	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment Section 5.10.1 and 6.1.9 address the traffic impacts on emergency services. As noted in the submission, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS (submitter) and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS (submitter) will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Consultation with the community and relevant government agencies (including emergency services) will continue through the detailed design and construction works stages to ensure that safety concerns and issues are addressed.</p> <p>The construction Traffic Management Plan will identify and include secondary/alternative construction routes which can be used by construction traffic in the event that a primary construction route is blocked by an accident or emergency situation. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority. In all of these cases, the QFES, QAS and QPS will be updated and informed of changes by the Contractor.</p>	Appendix AA: Traffic Impact Assessment Section 5.10.1 Section 6.1.9
222	222.0002	Private	Air Quality		School children and elderly will be impacted with dust and noise issues.	Work shorter hours	<p>Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust).</p> <p>The assessment of the construction works stage of the Project has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors. The definition of sensitive receptors as defined by the Queensland Government's Department of Environment and Science (DES) Guideline Application requirements for activities with impacts to air (DES, 2017) includes residences, temporary accommodation, schools and educational facilities.</p> <p>A qualitative assessment of the construction works stage was undertaken, as discussed in Section 12.5.1 of Chapter 12: Air Quality. Residential dwellings and schools located within the air quality study area (within 1 kilometre of the alignment) have been considered in the assessment of the construction works stage, and therefore impacts to these receptor types (schools, dwellings, etc) have been considered.</p> <p>The construction works stage assessment was undertaken considering the air quality goal for PM10 (particulate matter less than 10 microns in diameter), which is set for the protection of human health as prescribed by the Environmental Protection (Air) Policy (DES, 2019). The assessment also considered impacts to aesthetic amenity (nuisance dust) via assessment of dust deposition.</p> <p>The assessment determined that with the effective implementation of the proposed mitigation measures, the impacts to air quality at sensitive receptors (including schools and residential dwellings) with respect to dust deposition and human health will not be significant (Chapter 12: Air Quality, Section 12.8). It is noted that construction activity will be transient along the length of the Project, and therefore construction dust will not be generated along the entire alignment for the duration of the construction program. It is expected that dust emissions would be generated intermittently, subject to the activity being undertaken, and that any potential dust impacts would be short-term and temporary.</p> <p>It is also noted that the shortest averaging period for air quality goals set for particulate matter (dust) are 24-hour averages. The school day is shorter than 24 hours, and therefore the exposure duration for children at schools is shorter than the averaging period for air quality goals set for particulate matter. Further information on the results of the assessment for the construction works stage is presented in Section 12.5.1 of Chapter 12: Air Quality.</p> <p>Mitigation measures for the construction works stage were identified considering the emission sources anticipated and the magnitude of emissions expected. Section 12.6 of Chapter 12: Air Quality presents the mitigation measures which have been recommended for the construction works stage of the Project. These mitigation measures will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan. Based on the results of the assessment, and with the implementation of the recommended mitigation measures, reduced construction hours are not expected to be required.</p>	Chapter 12: Air Quality Section 12.5.1 Section 12.6 Section 12.8 Chapter 24: Draft Outline Environmental Management Plan
223	223.0001	Private	Traffic and Transport		The submitter is worried about the Inland Rail Crossing the floodplain between Millmerran and Toowoomba. He raises existing issues about heavy traffic which is stopped by roadworks. A rail line would further add to this, and have a very high maintenance requirement that might threaten business case and service of the Inland Rail.	Consult with main roads about the maintenance of this stretch of road before approving further infrastructure along this route.	As part of the consultation process outlined in Appendix E: Consultation Report, DTMR have been and will continue to be part of ongoing consultation regarding the Project and specifically regarding Millmerran Inglewood Road. The results of this consultation at the EIS stage are included in the revised draft EIS Appendix AA: Traffic Impact Assessment Further, once a construction contractor is appointed, consultation between the construction contractor, ARTC, local councils and DTMR regarding the provision of road impact assessments and road safety audits for all impacted LGRs and SCR will be required.	Appendix AA: Traffic Impact Assessment Appendix E: Consultation Report
224	224.0001	Private	Traffic and Transport	Road safety	The construction and operation of longitudinal transport infrastructure (in particular heavy rail) and subsequent rationalisation of intersecting roads/streets and bicycle/pedestrian access ways can make a significant adverse impact on the permeability/connectivity of walking and bicycling networks of the adjacent communities and towns.	Ensure that the accessibility and permeability/ connectivity of walking and bicycling networks are not worsened and, in support of strategic intents (i.e., the Queensland Walking Strategy, Qld Cycling Strategy, Toowoomba Regional Sustainable Transport Strategy) are improved to enable more sustainable and healthy transport activities for impacted nearby communities and towns.	<p>ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards.</p> <p>Chapter 5: Project Description Section 5.4 of the revised draft EIS provides detail on reference design including the Project alignment and road/ rail interfaces. This is further supported by the Appendix design drawings Part 1 and 2. Section 20.5.9 of Chapter 20: Traffic, Transport and Access identifies the existing walking and cycling networks impacted by the proposed Project alignment and construction routes.</p> <p>During construction, all road routes will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans will require regular assessment of road safety, road conditions and traffic composition including pedestrian and cyclist usage to ensure safety for all road users. Section 5.2.2 of the Appendix AA: Traffic Impact Assessment provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p> <p>ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/ shared user facilities, and consultation will continue with local councils regarding pedestrian crossing options during detailed design.</p>	Chapter 5: Project Description Section 5.4 Chapter 20: Traffic, Transport and Access Section 20.5.9 Appendix AA: Traffic Impact Assessment Section 5.2.2
224	224.0002	Private	Land Use and Tenure		Table 7.39 does not discuss the State Planning Policy (July 2017) Liveable Communities State Interest policy for Infrastructure and Services of (4) Connected pedestrian, cycling and public transport infrastructure networks are facilitated and provided. With regards to the State interest of liveable communities,	This Section needs to recognise and describe how The Project (during its construction, scoping the mitigation measures, and postconstruction) will contribute to these two State Interest policies. Please update/ amend the Section to reflect this.	<p>Chapter 8: Land Use and Tenure, Section 8.5.4 Compliance impact assessment has been updated to consider the consistency of the Project with State Planning Policy (July 2017). An assessment of the Project's consistency with each relevant SPP State interest is provided in Table 8-46.</p> <p>With regards to the State interest of Liveable communities, the Project has committed to a range of measures to mitigate and manage impacts on those community and urban infrastructure that make a community 'liveable', through the implementation of relevant management plans including the SIMP, which includes a Health and Community Wellbeing Management Plan. The Community Wellbeing Plan will provide a framework for cooperation with key stakeholders to implement mitigation measures addressing impacts on quality of life as the result of Project impacts on amenity, character, cohesion or connectivity.</p>	Chapter 8: Land Use and Tenure Section 8.5.4 Table 8-46
224	224.0003	Private	Land Use and Tenure		Table 7.39 does not discuss the State Planning Policy (July 2017) Transport Infrastructure State Interest policy for All Transport Infrastructure of (5) A road hierarchy is identified that reflects the role of each category of road and effectively manages all types of traffic. Active Transport is included in all types of traffic. This Project risks adversely impacting the nearby communities and towns. Active Transport network permeability/ connectivity and effectiveness.	Ensure that The Projects mitigation measures are scoped to effectively support these two State Interest policies; particularly in the vicinity of impacted nearby communities and towns where the ability for walking and cycling should not be adversely affected by The Project.	<p>Chapter 8: Land Use and Tenure, Section 8.5.4 Compliance impact assessment, has been updated to consider the consistency of the Project with State Planning Policy (July 2017). An assessment of the Project's consistency with each relevant SPP State interest is provided in Table 8-46.</p> <p>With regards to the State interest of Infrastructure integration, the Project supports the expansion of existing infrastructure associated with the introduction of a heavy freight rail between Melbourne and Brisbane. The Project is likely to support current and future industries associated with the Charlton-Wellcamp Enterprise Area, including Toowoomba Enterprise Hub, which is an area of strategic importance in supporting industrial growth in the Toowoomba region.</p> <p>With regards to Transport infrastructure, the Project supports this State interest by using the existing South Western Line and Millmerran Branch rail corridors where possible. Furthermore, the Project has considered and assessed potential impacts to State-controlled roads, local government roads and stock routes within the impact assessment area. This is further discussed and considered in Chapter 20: Traffic, Transport and Access.</p>	Chapter 8: Land Use and Tenure Section 8.5.4 Table 8-46 Chapter 20: Traffic, Transport and Access
224	224.0004	Private	Social Impact Assessment	Road safety	The Qld Walking Strategy and Qld Cycling Strategy are Qld Government documents to enable more walking and more cycling across Queensland for the improved health and transport (reduced carbon emissions) outcomes for Queenslanders and their communities. The Toowoomba Regional Sustainable Transport Strategy (2014) is a Toowoomba Regional Council document which documents a Vision of "... safe and equitable transport options to support the development of healthy and happy communities ..." and includes a Social Objective of - "Safe, accessible and reliable transport options are available for residents to ensure equity of access and social participation. "Safe and connected walking and cycling networks and facilities are usable by a broad range of citizens and purposes to support active, healthy communities.	Ensure that the accessibility and permeability/ connectivity of walking and bicycling networks are not worsened and, in support of strategic intents (i.e., the Queensland Walking Strategy, the Qld Cycling Strategy & the Toowoomba Regional Sustainable Transport Strategy), are not worsened (improved) to enable more sustainable and healthy transport activities for impacted nearby communities and towns. Ensure that the impacts from the Project's mitigation measures to the road transport network are considered and documented. Ensure that mitigation measures to roads and bicycle/ pedestrian access ways are provided and to contemporary Standards/ Guidelines (e.g. Austroads).	<p>ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards.</p> <p>Chapter 5: Project Description Section 5.4 provides detail on reference design including the Project alignment and road/rail interfaces. This is further supported by the Appendix design drawings Part 1 and 2. Section 20.5.9 of Chapter 20: Traffic, Transport and Access identifies the existing walking and cycling networks impacted by the proposed Project alignment and construction routes.</p> <p>During construction, all road routes will be subject to a Road Use Management Plan and Traffic Management Plan, 224 which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans will require regular assessment of road safety, road conditions and traffic composition including pedestrian and cyclist usage to ensure safety for all road users. Section 5.2.2 of Appendix AA: Traffic Impact Assessment provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.</p> <p>ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/shared user facilities, where the need for that facility remains with relevant local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design. Once agreed, changes to active transport networks will be communicated to active transport users through regular Project channels.</p>	Chapter 5: Project Description Section 5.4 Chapter 20: Traffic, Transport and Access Section 20.5.9 Appendix AA: Traffic Impact Assessment Section 5.2.2
224	224.0005	Private	Landscape and Visual Amenity		It has been recognised and documented that community members near the Project footprint enjoy an active, self-generated outdoor recreation (such as bike riding and trail walking). However, there is no discussion about how these activities are being impacted by the Project's mitigation measures so that Community members can just as readily continue to participate in such activities after construction of the Project.	Ensure that the impacts from the Project's mitigation measures to the road transport network are considered and documented. Ensure that mitigation measures to roads and bicycle/ pedestrian access ways are provided and to contemporary Standards/ Guidelines (e.g. Austroads). Include a response in Table 15.14 under the Amenity and lifestyle Impact area	<p>Chapter 6: Stakeholder Engagement, Section 6.6.6 notes that consultation with active transport users and representative groups, including the Queensland Regional Active and Public Transport Advisory Committee (RAPTAC) and the Toowoomba Regional Bicycle Users Group (TRBUG) was undertaken in May 2022 to discuss the needs of stakeholders represented by these interest groups. ARTC will continue to engage with these active travel user groups as the Project progresses through detailed design and construction to ensure active transport corridors are considered and active transport users, including cyclists and pedestrians, are informed at each stage regarding changes to access and roads.</p> <p>Mitigation measures to roads and bicycle/ pedestrian access ways are provided and to contemporary Standards/Guidelines (e.g. Austroads) and are included in Section 20.6.1 with further detail outlined in Table 20.50 of Chapter 20: Traffic, Transport and Access.</p>	Chapter 6: Stakeholder Engagement Section 6.6.6 Chapter 20: Traffic, Transport and Access Section 20.6.1 Table 20.50
224	224.0006	Private	Traffic and Transport	Road safety	It has been recognised and documented that the rate of death from road traffic injuries in the impact assessment area is high compared with rates for Queensland (and) has a bearing on the risks for rail transport and road-based vehicles. However, there is no discussion about how these risks, particularly for vulnerable road users (e.g. bicycle riders) are being mitigated; nor is there details about any mitigation measures for vulnerable road users.	Ensure that mitigation measures to roads and bicycle/ pedestrian access ways are provided and to contemporary Standards/ Guidelines (e.g. Austroads). Ensure that the impacts from the Project's mitigation measures to the road transport network are considered and documented.	<p>Appendix AN and AO of the revised draft EIS Appendix AA: Traffic Impact Assessment details the individual Intersection and road link road safety assessments, each identifying detailed mitigation measures on a case by case basis inclusive of the existing cyclist and pedestrian pathways. Appendix AP and AQ of the Traffic Impact Assessment contain the road-rail interface road safety assessments for construction works stage and operations stage of the Project respectively, both considering pedestrian and cyclist safety risks and detailed mitigation measures where required.</p> <p>The safety assessments carried out in Appendix AA: Traffic Impact Assessment calculated individual risk ratings based on the severity and frequency of historical vehicle crash data as per Section 9 of the DTMR GTIA process. Road safety audits for the permanent road changes for the design of the Project, not necessitated by results of the Appendix AA: Traffic Impact Assessment, will be undertaken as part of the road design development process separate to Appendix AA: Traffic Impact Assessment. These audits will be undertaken as the Project alignment and construction routes are confirmed in detailed design.</p> <p>Where a road safety audit is required, the audit will be undertaken by DTMR accredited road safety auditors who are independent of ARTC. A Feasibility Stage road safety audit will be undertaken in accordance with Austroads Guide to Road Safety Part 6: Road Safety Audit (AGRS06-19) and the DTMR Supplement to Traffic and Road Use Management Manual Volume 2: Guide to Road Safety, Part 6: Road Safety Audit.</p>	Appendix AA: Traffic Impact Assessment Appendix AN Appendix AO Appendix AP Appendix AQ

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
224	224.0007	Private	Traffic and Transport		Sect. 15.8.1.6, Table 15.14 - The Impact area of Connectivity discusses impacts from construction and Operation (of The Rail Project) Delivery phases however there appears to be little consideration or discussion documented of impacts from the Operation from the new road network on road users because of the proposed mitigation measures in particular on walking and cycling activities. The Traffic Impact Assessment (TIA) (Appendix X) has not sufficiently reviewed the existing cycling or pedestrian networks, nor sufficiently assessed the Project's impacts on bicycling and walking activities, nor provided mitigation measures for any such impacts.	Ensure that the impacts from the Projects mitigation measures to the road transport network are considered and documented. Include a response in Table 15.14 under the Connectivity Impact area. Update the TIA and the EIS to recognise that there are bicycle riders who can access all of the road network, and actually do ride within The Projects impact area.	ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards. An assessment of the existing cycling infrastructure is presented in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 2.16.1. Identified impacts and mitigation requirements on the existing cycling and pedestrian network infrastructure are listed in Appendix AA: Traffic Impact Assessment, Section 5.10.7. Cyclist and pedestrian safety has also been considered with cyclist mitigation requirements as per the GTIA guidelines summarised in Appendix AA: Traffic Impact Assessment, Section 5.2.2. During construction, all road routes will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans will require regular assessment of road safety, road conditions and traffic composition including pedestrian and cyclist usage to ensure safety for all road users. Section 5.2 provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.	Appendix AA: Traffic Impact Assessment Section 5.2 Section 2.16.1 Section 5.2.2 Section 5.10.7
224	224.0008	Private	Stakeholder Engagement		Sect. 15.9.7, Table 15.26 Table 15.26 (page 15-113) - In response to 'Impacts on community/ traffic safety' to be addressed - vulnerable impacted road users (e.g. bicycle riders) have not been included in mechanisms	Under Mechanisms include - engagement with bicycle riders/ cycling groups/ bike shops. Engage with walking and bicycling users' about the impacts and suitable mitigation measures. (* e.g. TRC's Regional Active and Public Transport Advisory Committee, Toowoomba Regional Bicycle Users Group, and/or the Author).	ARTC notes that further consultation with bicycle users and TRC about the potential impact of the Project on cycle connectivity as part of its targeted engagement on road/ rail interfaces was undertaken in February and March 2022, as part of the development of the revised draft EIS. Details of this consultation can be found in Chapter 6: Stakeholder Engagement, Section 6.6.6. ARTC also notes that that road/rail interfaces in the reference design has been developed in consultation with asset owners (TMR and councils) and in accordance with their standards. Consultation will continue into the detailed design stage. Further consultation with active transport individuals and representative groups, including the Queensland Regional Active and Public Transport Advisory Committee (RAPTAC) and the Toowoomba Regional Bicycle Users Group (TRBUG) will be ongoing. ARTC will continue to consult with these active travel user groups as the Project progresses through detailed design and construction to ensure active transport corridors are considered and active transport users, including cyclists and walkers, are informed at each stage regarding changes to access and roads.	Chapter 6: Stakeholder Engagement Section 6.6.6 Appendix E: Consultation Report Section 5.6
224	224.0009	Private	Traffic and Transport		Sect. 15.10, Table 15.29 (page 15-119) Connectivity and travel behaviour - In response to the impact of 3.6 km trains creating longer traffic delays of two to three minutes, it has been stated that - Such delays are common on many rural roads and are likely to be tolerated. This statement seems unfounded as the roads in The Project's impact area would not normally encounter delays of two to three minutes; comments from the communities in the Appendix U clearly state that community members are concerned about the impacts/risks from drivers being delayed at rail crossings.	Undertake an assessment of the impacts to the walking and cycling networks. Ensure that mitigation measures support the More Walking and More Cycling visions of the various governments' intents. Please review the statement, and the proposed measures in the SIMP and Residual risk.	Appendix AA: Traffic Impact Assessment Section 1.1.2 Relevant legislation, policy and guidelines, has been updated to include consideration and discussion of Queensland policies, plans and strategies that support active transport. These policies include: <ul style="list-style-type: none">Queensland Walking StrategyQueensland Cycling StrategyDTMR Cycling Infrastructure PolicyAustroads Guide to Traffic Management Part 4: Network Management StrategiesDTMR Road Planning and Design ManualIPWEQ Street Design Manual: Walkable Neighbourhoods These policies have been integrated throughout the assessment process and will continue to be referenced throughout the construction process as a part of the Traffic Management Plan.	Appendix AA: Traffic Impact Assessment Section 1.1.2
224	224.0010	Private	Traffic and Transport		Appendix U Social Impact Assessment, Sect. 7.1.6 -	It has been stated that Yelarbon residents requested a pedestrian path be provided across the line with a response of the Project design has not included a pedestrian path, citing that because there is no current pedestrian path and There are only two houses north of the proposed alignment as apparent justification for not including a pedestrian access way. No current pedestrian path does not equate to no actual pedestrian activities and dismissing the request. This seems like a very subjective and dismissive decision process which defaults to excluding the provision of Active Transport facilities. The submitter feels that providing this infrastructure will help address the negative community sentiments about the Project.	Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the reference design reviews and updates for the Yelarbon road rail interfaces and the proposed pedestrian crossing facilities. As part of the revised reference design a dedicated active pedestrian level crossing has been added at the existing Cunningham Highway interface location (310-11-E-1) to enable pedestrian movement north/ south of the Yelarbon township. ARTC has committed to maintaining connectivity of existing on and off-road pedestrian/ shared user facilities, where the need for that facility remains in a Third-Party Agreement with local councils. Consultation will continue with local councils regarding pedestrian crossing options during detailed design.	Appendix AA: Traffic Impact Assessment Section 3.7.2
224	224.0011	Private	Traffic and Transport		The DTMR Cycling Infrastructure Policy has not been included/ referenced. The Guide to Traffic Management Part 4: Network Management Strategies (Austroads, 2020) has not been included/ referenced. The Guide to Traffic Management Part 4: Network Management Strategies (Austroads, 2020) has not been included/ referenced. The Guide to Traffic Management Part 4: Network Management Strategies (Austroads, 2020) has not been included/ referenced.	Include the DTMR Cycling Infrastructure Policy in this Section to provide the reasoning for the provision of facilities/ infrastructure for bicycle riders. Include reference to the DTMR Road Planning and Design Manual. Include reference to the IPWEQ Street Design Manual: Walkable Neighbourhoods.	ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards. An assessment of the existing cycling infrastructure is presented in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 2.16.1. Identified impacts and mitigation requirements on the existing cycling and pedestrian network infrastructure are listed in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.10.7. Cyclist and pedestrian safety has also been considered with cyclist mitigation requirements as per the GTIA guidelines summarised in Appendix AA: Traffic Impact Assessment, Section 5.2.2. The whole of Project mitigation measures recommended for the provision of cyclists make reference to the Austroads Guide to Road Design Part 3, 4, and 4a (2017, 2017, 2014) along with the Austroads Guide to Road Safety Part 6a and 8 (2019c, 2015) and the Austroads Guide to Traffic Management Part 6 and 12 (2020, 2016) as per the DTMR GTIA requirements for active transport. These mitigation measures also follow the Cycling Aspects of Austroads Guides (2017c). The CAoAG references the Guide to Traffic Management Part 4: Network Management Strategies. ARTC will continue to work collaboratively with DTMR and engage with community stakeholders and local councils as detailed design progresses regarding pedestrian and cycle connectivity.	Appendix AA: Traffic Impact Assessment Section 2.16.1 Section 5.2.2 Section 5.10.7
224	224.0012	Private	Traffic and Transport	Baseline/ background sampling	There is no data documented for bicycle trips within The Project's impact area. It is not possible to objectively investigate and assess the impacts on bicycle usage when the base line data for bicycle traffic is not known.	Strava and Global Heatmap may be used to generate the required data on cycling and public exercising activities.	ARTC recognises the impact on the community, in particular on pedestrian and cycling infrastructure, by designing the Project alignment and construction routes in accordance with the relevant guidelines and standards including Austroads and DTMR road infrastructure guidelines and standards. The revised draft EIS Appendix AA: Traffic Impact Assessment has assessed the requirements to accommodate key cycling and walking infrastructure identified in the Principal Cycle Network Plans (PCNPs) in accordance with DTMR design standards. During construction, all road routes will be subject to a Road Use Management Plan and Traffic Management Plan, which must be prepared in accordance with DTMR and TRC guidelines and standards. These plans will require regular assessment of road safety, road conditions and traffic composition including pedestrian and cyclist usage to ensure safety for all road users. Section 5.2.2 provides further detail of mitigation measures for the whole Project that will be implemented during subsequent Project stages.	Appendix AA: Traffic Impact Assessment Section 5.2.2
224	224.0013	Private	Traffic and Transport		The TIA and EIS has only considered Principal cycle routes as defined by Queensland Principal Cycle Network Plans (PCNP) for bicycle usage. These routes are for planning purposes and are not representative of where bicycles are currently being ridden.	1. Consult the Strava heatmap to see where bicycle riders are using the road/ street network within The Project area. 2. Undertake assessment of the impacts that The Project will have on these activities.	While app-based heatmaps can provide an indication of spatial variation in recreational activities, they also have inherent biases against, young, elderly, less technically adept or low socioeconomic groups, and user numbers. Generally, Strava is not a data source that is used for traffic impact assessment in Queensland due to these limitations. The TIA assessment has been undertaken to understand impacts on the cycle network consistent with TMR's published PCNP, which have been developed with Local Government to provide a connected and cohesive cycle network. This allows for a consistent approach across the network without implementing unknown bias and is the generally applied process for traffic impact assessment across Queensland. Intersection and road link safety assessments defined in revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.2.2 has identified the mitigation requirements for all roads scoped in detailed design and construction works stages with consideration for cyclist and pedestrian safety. Traffic management plans (TMP) will be in place during construction works stage with provision for cyclist traffic to be developed further as detailed design progresses.	Appendix AA: Traffic Impact Assessment Section 5.2.2
224	224.0014	Private	Social Impact Assessment		The draft EIS has not described all the potential social impacts from rationalising roads/ streets which risk adversely impacting on the permeability/ connectivity of walking and bicycling networks – affecting the social cohesion and connectedness of adjacent communities and towns.	Refer the many suggested solutions/ comments above to ameliorate these issues.	Revised draft EIS Appendix AA: Traffic Impact Assessment provides detailed assessment of changes to pedestrian, cycle and vehicular connectivity. Appendix X: Social Impact Assessment describes changes to public roads and pedestrian connectivity and acknowledges and describes impacts on community cohesion (Section 7.1.7). Mitigation measures for impacts to community values such as connectivity and community cohesion are described in Appendix X: Social Impact Assessment, Section 8.2.4 and 8.5.8, and will be further detailed as part of the Community Wellbeing Plan.	Appendix AA: Traffic Impact Assessment Appendix X: Social Impact Assessment Section 7.1.7 Section 8.2.4 Section 8.5.8
225	225.0001	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project.	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
225	225.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
225	225.0004	Private - Brookstead	Stakeholder Engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community.</p> <p>ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders.</p> <p>The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board.</p> <p>ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records.</p> <p>ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p> <p>The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication.</p> <p>Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses.</p> <p>The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process.</p> <p>draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
225	225.0005	Private - Brookstead	Noise and Vibration	operational rail noise	<p>ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.</p>	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As well as all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4</p>
225	225.0007	Private - Brookstead	Traffic and Transport	Level crossing	<p>The submitter states that the proposed route has the rail crossing the Millmerran-Ingleswood Road three times. It is noted on Table 15.15 Summary of Rail Bridges that two of these crossing will be rail bridges and on Table 5.15 proposed public road-rail interfaces and proposed treatments included in the reference design has one crossing as active level crossing.</p>	<p>The submitter states that the active level crossing is not consistent with Federal Rail Safety Guidelines and due to the amount of traffic that is diverted through this during accidents and flooding on the Gore Highway (Millmerran-Goonindwindi) this crossing must be changed to a grade separated crossing. It is in the interest of safety and future traffic.</p>	<p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 3.7.6 discusses the reference design reviews and updates at the proposed Millmerran Ingleswood Road Crossing at grade active level crossing. From both a road and rail safety perspective, the overarching objective across Inland Rail is to, in so far as is reasonably practicable, minimise the number of level crossings across the alignment. This has resulted in two of the three interfaces with Millmerran-Ingleswood Road proposed to be grade separated as part of the Inland Rail Scope. In consultation with DTMR, the Project team has undertaken extensive reviews and assessed design alternatives for the Millmerran-Ingleswood Road interfaces, which included alternative rail alignments and grade separations.</p> <p>The design process has included an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings, and this becomes as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory Transport Ministers. Appendix BT provides an overview of the assessment methodology for developing road-rail interface treatments. This overview provides Office of Coordinator-General, DTMR and the Community with further transparency on the design process undertaken and understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout Project.</p> <p>The two northern crossings (310-35-P-4 and 310-37-P-12a) are topography-based grade separations, where the rail height, governed by the vertical rail grades, is naturally higher than the existing road level. The rolling hills of Millwood and Millmerran provide an opportunity for the rail line to bridge Millmerran-Ingleswood Road, which falls within localised depressions in the landscape. The most southern crossing of Millmerran-Ingleswood Road, at Ingleswood (310-24-P-2), did not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation detailed Public Level Crossing Treatment methodology. Applying the ONRSR audited methodology, higher order treatments, such as grade separation, are not justified at this location as part of the Inland Rail scope.</p> <p>From a future proofing perspective, ARTC used 2040 road and rail traffic numbers as part of the assessment. These traffic numbers have been reviewed by DTMR and factored in the known growth rates in this area. Noting there is also relatively low train volumes in this area with a forecast approximate 1 train every 2 hours on average when IR is first operational and increasing to around 1 train every hour by 2040. Section 5.8 of Appendix AA: Traffic Impact Assessment discusses proposed level crossing impact assessment and mitigation for construction traffic volumes. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment. The analysis found the approximated wait time at the Millmerran Ingleswood Road level crossing is 1 minute and 9 seconds. Recorded traffic volumes in the area suggest that this period is likely to effect less than 2 vehicles before the crossing is cleared.</p> <p>The IR scope for this location is to construct an active level crossing will boom barriers and flashing lights. This is the highest form of level crossing control in the Australian Standard (AS1742.7-2016). All level crossings will be designed to meet the relevant Australian, State and Road Authority standards, which include the factors including sighting distances, gradients and approach angles.</p> <p>ARTC will continue to work collaboratively with DTMR as detailed design progresses regarding the proposed level crossing design solution.</p>	<p>Appendix AA: Traffic Impact Assessment Section 3.7.6 Section 5.8 Section 5.9</p>
225	225.0008	Private - Brookstead	Land Use and Tenure		<p>The submitter raises concern regarding severance of prime agriculture land.</p>	<p>The submitter states that consideration should be taken to ensure that any prime agricultural land is acquired by leaving the maximum area possible for the landholder and have minimal impacts to the agriculture land and farming operations. The submitter states that by realignment of the proposed rail line to the boundary, this would save the need to have an underpass/ overpass for the movement of large machinery and stock movement. At present the rail line is proposed to dissect a parcel of land leaving a portion of land to be less production. The submitter states that this would show that ARTC are attempting to work with the landholders to ensure the minimum impact.</p>	<p>ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC is committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of good quality agricultural land that cannot be avoided (Chapter 8: Land Use and Tenure, Section 8.6.1).</p> <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>Refer to Chapter 8: Land Use and Tenure, Sections 8.5 and 8.6 of the revised draft EIS for further detail.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.1 Section 8.6.2 Table 8-46</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
225	225.0009	Private - Brookstead	Land Use and Tenure		The submitter states that the construction and operating of a heavy duty rail line designed to operate indefinitely, will cause widespread and irreversible impacts on the strategic cropping land. The submitter states that farmers will be losing land to the rail corridor and there will be many parcels of land that are severed and too small or difficult shaped, or no longer accessible for cropping with wide machinery.	The submitter raises that ARTC has stated in the draft EIS that its activities are not regulated activities and it was not affected by Regional Interest Planning Act, that is only partly correct. The submitter states that the State Government should have made a decision on the regulated activities prior to the draft EIS being on display.	<p>The Regional Planning Interests Act 2014 (Qld) regulates areas of regional interest and requires a resource activity or regulated activity proposed to be located in an area of regional interest to obtain a regional interests development approval. As the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014 (Qld), the Act does not apply. As such, the Regional Planning Interests Act 2014 (Qld), and the alignment's impact on the matters protected under Regional Planning Interests Act 2014 (Qld), do not have a bearing on the EIS process, nor is the approval of the EIS contingent on the assessment of the Project's impact on areas of regional interest. Notwithstanding this, the Project's impact on areas of regional interest protected under the Regional Planning Interests Act 2014 (Qld) has been assessed to provide a comprehensive assessment of the Project's impact on agricultural, environmental and societal values present within both the temporary and permanent disturbance footprints of the alignment (Chapter 8: Land Use and Tenure, Section 8.2).</p> <p>To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9, which provides a total of areas of regional interest in relation to the Project footprints. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations.</p> <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.2 of Chapter 8: Land Use and Tenure).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and construction Environmental Management Plan.</p> <p>Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.2 of the revised draft EIS for further detail.</p>	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46
225	225.0010	Private - Brookstead	Flora and Fauna	Koala	The submitter raises concern regarding the Koala habitat along the proposed rail line, that Koala scats have been found along the proposed rail line, Koala sightings have been found at Native Dog Creek, Millmerran Powerhouse, along the floodplain trough, the inner Downs foothills and onto Gowrie.	The submitter states that the draft EIS has 2 isolated likely areas from Goondiwindi to Gowrie and that it is inaccurate. The submitter states that the draft EIS requires further on ground studies to have landholders believe the accuracy of the information.	<p>Post the release of the draft Border to Gowrie EIS, ARTC has completed additional detailed field surveys across the Border to Gowrie Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the <i>Technical Ecological Assessment from Ausecology</i> (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft Border to Gowrie EIS and Appendix M: Draft Koala Management Plan.</p> <p>Active searches for Koalas were undertaken at all assessment sites (refer to Appendix L: Terrestrial and Aquatic Ecology Technical Report). The updated species locations, population counts and ground-truthed suitable habitat within the Project footprint is detailed in Appendix O: Matters of National Environmental Significance.</p>	Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix O: Matters of National Environmental Significance
225	225.0011	Private - Brookstead	Flora and Fauna	Mitigation measures	The submitter raises concern with respect to the Poplar Box trees species which grow from Murlaggan to Brookstead and then from Yandilla to Bringally Forestry. These trees are preferential food trees for Koalas.	The submitter states that removal of these trees during construction will destroy the Koala habitat. The submitter questions what mitigation measures will be required to reduce potential impacts to wildlife arising from light at night during both the construction and operation stage of the proposed Project.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the <i>Technical Ecological Assessment from Ausecology</i> (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Light impacts are discussed in Chapter 11: Flora and Fauna of the revised draft EIS. While construction lighting will be temporary, operational lighting will be long term but it will be localised to infrastructure and transient in nature with vehicle movement. Additionally, mitigation measures for light impacts are outlined in Chapter 24: Draft Outline Environmental Management Plan which include: detailed design to incorporate lighting to the minimal level required to meet operational road and rail safety requirement, attenuation measures to minimise light spillage will be assessed and incorporated into the detailed design such as selection of appropriate light fittings/ shield and/or at receptor treatments; limit the potential for vertical illuminance by selecting luminaires that direct light downwards to avoid lateral glare.</p>	Chapter 11: Flora and Fauna Sections 11.5 Section 11.6 Section 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
225	225.0012	Private - Brookstead	Air Quality	Mitigation measures	The submitter raises concern with respect to impacts on water quality for domestic and animal welfare, additional air pollution added to water supply (dams) troughs at feedlots/piggeries as well as run off contamination from roofs and dust emissions.	The submitter questions what mitigation plan has been put forward in relation to air quality for rural/ intensive animals	<p>The assessment investigated potential impacts to tank water quality during the operation of the Project (refer to Section 12.5.2 of Chapter 12). This assessment was completed by predicting the deposition of pollutants of the rooves of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from the roof into a water tank. This assessment showed that tank water quality impacts from the Project would be negligible as pollutant concentrations would be well below the concentrations prescribed by the Australian Drinking Water Guidelines (National Health and Medical Research Council and National Resource Management Ministerial Council 2022). Section 12.5.1 of Chapter 12: Air Quality shows that for the worst affected receptor, compliance with the drinking water guidelines is predicted for all pollutants of concern (arsenic, cadmium, lead, nickel, chromium VI), with predicted pollutant concentrations more than a thousand times less than the drinking water guidelines.</p> <p>Based on the results of the tank water assessment (against human drinking water guidelines) no significant impacts to water supplies for livestock are expected. The methodology applied is described for water tanks, however, it is also conservatively applicable for assessment of impacts to water quality for dams, noting that the ratio of the surface area (roof area) to water volumes (e.g. 1,000 L for a tank) would be significantly lower than assumed for the assessment of impacts to water tank quality. Impacts to tank water quality are described in Section 12.5.2 of Chapter 12: Air Quality.</p> <p>Based on the results of the assessment, mitigation measures are not required for rainwater tanks or dams for residential dwellings or agricultural purposes. Mitigation measures to minimise air emissions and limit the potential for impacts to human health and amenity have been recommended for the Project and are included in Section 12.6 of Chapter 12: Air Quality.</p> <p>Air pollution can impact agriculture and the Queensland Environmental Protection (Air) Policy (2019) includes air pollutant criteria to protect the environmental value of agriculture. However, the Project will not emit any pollutants (such as fluoride) that include air quality objectives that protect agricultural land uses. Therefore, it is expected that there would be a negligible impact to agriculture due to air emissions from the Project. Consideration of the potential impact to agriculture as a result of dust deposition during the operation of the Project has been included in the assessment in Section 12.5.2 in Chapter 12: Air Quality. Based on the results of the assessment, it is considered unlikely that significant impacts to agricultural receptors will occur as a result of emissions from the operation of the Project.</p> <p>No mitigation measures are required to protect animals based on the results of the air quality assessment. Mitigation measures to minimise air emissions and limit the potential for impacts to human health and amenity have been recommended for the Project and are included in Section 12.6 of Chapter 12: Air Quality.</p>	Chapter 12: Air Quality Section 12.5.1 Section 12.5.2 Section 12.6
225	225.0013	Private - Brookstead	Air Quality	Terrestrial fauna	The submitter raises concern that the draft EIS has not mentioned the impacts that construction dust will have on animal welfare and states that dust emission on animal eyes causes (blight infections Bovine Keratoconjunctivitis). The submitter states that Dust is a high-risk factor in the primary rural areas	Nil.	<p>The Project acknowledges the submitters concern about the impact of dust, especially during construction. The air quality assessment for the Project assessed dust emissions during the construction works stage of the Project and the potential for impacts to human health and amenity.</p> <p>A qualitative assessment of construction dust impacts assessment was also undertaken for the Project, as presented in the revised draft EIS Chapter 12: Air Quality, Section 12.5.1. The construction dust assessment did not consider impacts to animal welfare as there are no air quality goals for dust prescribed by Commonwealth, State or Local Governments which are set for animal welfare protection. However, the construction dust assessment considered impacts to human health and aesthetic amenity, which have stricter legislated air quality goals than the concentration and deposition levels which are indicated to impact animal welfare (Andrews & Shrikandarajah, 1992; Donham, 1991; and Donham et al., 1995).</p> <p>Recommended mitigation measures to minimise dust emissions from the construction of the Project are presented in Section 12.6 in Chapter 12: Air Quality. These recommended mitigation measures will reduce the risk of significant air quality impacts at sensitive receptors, including animals. The recommended mitigation and management strategies are included in Chapter 24: Draft Outline Environmental Management Plan for the Project.</p> <p>Based on the methodology and outcomes of the assessment, and the mitigation measures which will be implemented, it is considered that the risk that dust emissions from the Project will cause infectious Bovine Keratoconjunctivitis is low.</p> <p>References: Donham, KJ. (1991). Association of environmental air contaminants with disease and productivity in swine. <i>American Journal of Veterinary Research</i> 52, 1723-30. Donham, KJ. (1995). A review - The effects of environmental conditions inside swine housing on worker and pig health. In <i>Manipulating Pig Production V</i>. (Eds DP Jennessy, PD Cranwell.) Vol. 5 pp. 203-221.</p>	Chapter 12: Air Quality Section 12.5.1 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan
225	225.0014	Private - Brookstead	Groundwater		The submitter raises concern with respect to the potential impacts of the Project on the groundwater resources.	The submitter states that no existing bores should be impacted during the construction of the rail line, however, this country has been through the worst drought in years and the EIS has not provided assurance where the water will be coming from and what impact this will have to the underground water supply.	<p>The revised draft EIS has been updated to reflect the revised number of bores anticipated to be impacted by the rail alignment. ARTC has undertaken an additional bore survey to confirm the location/ presence of registered bores (water bores - under the Water Act) and to identify any unregistered bores that may be impacted from the Project. Chapter 15: Groundwater, Section 15.5.4 has been updated accordingly with potentially impacted groundwater users and proposed potential make-good measures are detailed in Section 15.7.4 and Table 15-20. ARTC will further engage with water users/ landholders to determine the appropriate make-good mitigation strategy on a case-by-case basis.</p> <p>The use of groundwater for construction water is not a preferred water source for the Project. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20). Detailed discussion of ARTCs approach to construction water are outlined in Appendix B5: Construction Water Requirements Report.</p>	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-20 Appendix B5: Construction Water Requirements Report
225	225.0017	Private - Brookstead	Editorial		The submitter highlights that in Appendix U, Table 5.37 Primary & secondary Education LGA area are incorrect with Millmerran State (P-10) school, St Joseph's School (Millmerran) and Brookstead State School.	The submitter states that the draft EIS is incomplete and errors in the EIS indicates no confidence and shortcomings in the draft EIS.	<p>This issue is noted.</p> <p>The locations of the Millmerran State School, St Josephs School, and Brookstead State school have been reviewed and the local government areas amended the revised draft EIS Appendix X: Social Impact Assessment, Section 5.6.2 (Table 5.36).</p>	Appendix X: Social Impact Assessment Technical Report Section 5.6.2 Table 5.36

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
225	225.0018	Private - Brookstead	Hazard and Risk		<p>The submitter raises concern regarding the spread of noxious weeds which is a biosecurity risk.</p> <p>The submitter was part of the Southern Downs Community Consultative Committee (SDCCC) in Term 1 from December 2017 to December 2019 and was then reappointed for Term 2 in January 2020 to present and states that Biosecurity concerns/ weed management was discussed at the SDCCC meeting (2019) with ARTC engaged with stakeholders to have a weed management policy/washdown policies to be distributed/monitored. The submitter states that ARTC engaged with stakeholders but contractors to date have not been conforming to this outcome from the meeting.</p> <p>The submitter states that vehicles that have been on private property have not used washdown and the SDCCC brought this to the attention of ARTC again at a meeting held in 2021 and an email received from Rob McNamara (ARTC) pre-contracts Direct North (28/04/2021) advised that in relation to the biosecurity concerns, this is something that we are going to take on board and come back to the committee with our proposed solution. A number of our staff are weed and seed accredited and so we may need to replicate this training to ensure all staff travelling in the field can competently wash down their vehicles when required. The submitter states that it is obvious that there is no checking on staff and the impacts that this biosecurity risk has with landholders.</p>	<p>The submitter states that there has been a failure of ARTC in their aims and objectives of Stakeholder Engagement to build trust, build credibility and build visibility about the Project and the EIS process (Appendix C, Section 2.1, Table 2.1). The submitter states that the landholders require a guarantee/condition as part of the EIS to ensure that ARTC will be responsible for the eradication of noxious weeds that have been brought onto the property due to the construction of the rail line. The submitter states that the proponent is to be responsible for the ongoing eradication of such noxious weeds until the eradication of such weeds.</p>	<p>ARTC, engaged with stakeholders and its contractors and consultants have required access to private properties to undertake technical assessments to support development of the revised draft EIS and the revised reference design. Access to private property has been achieved through Land Access Agreements, negotiated with individual landholders. These Land Access Agreements specify each landholder's conditions for permitting access to their property. Such requirements include weed management controls. All personnel undertaking site works have been supplied with copies of approved Land Access Agreements to ensure that property-specific access conditions are understood.</p> <p>In preparation for construction, a pre-construction survey of weeds within the Project footprint will be conducted. This survey will establish a baseline for the location and extent of weed infestations within the Project footprint.</p> <p>A Biosecurity Management Plan will be developed prior to the commencement of construction by the 'Contractor' as a component of the Construction Environmental Management Plan. This Plan will be developed in consultation with relevant stakeholders and affected landholders and will include:</p> <ul style="list-style-type: none"> Maps of the existing extent and severity of weed infestations, confirmed through pre-construction survey. Locations of vehicle washdown (light vehicle and oversized vehicles) and rumble grids. Weed surveillance and treatment measures to be implemented during construction and rehabilitation activities. Requirements in relation to herbicide use, including any limitations on use. Corrective actions should the outcomes not achieve the adopted objectives. <p>The effectiveness of weed hygiene measures will be monitored as a component of the environmental monitoring procedure for the Project.</p> <p>Weed management measures that will be implemented for the Project are detailed under a Biosecurity Management Plan outlined in Chapter 24: Draft Outline Environmental Management Plan in the revised draft EIS.</p>	Chapter 24: Draft Outline Environmental Management Plan
226	226.0001	Private	Noise and Vibration	operational rail noise	<p>The submitter is concerned about the potential operational noise and its long-term impact for an ongoing growing township. His concern is related to Chapter 14 and Appendix T. The proposed embankment extending on either side of the Oakley - Pittsworth Road to the north-west of Pittsworth, will be up to 14 m high to the west of the Oakley-Pittsworth Road. This, and the associated rail over road crossing are of concern regarding operational noise impacts for residents on both sides of the proposed embankment and crossing. Similar concerns exist for the proposed embankment, and rail over road crossing at Lochaber Road north of Pittsworth. The perceived omissions from the operational noise modelling studies, create some doubt as to whether the draft EIS has adequately addressed the relevant Terms of Reference for noise impacts 11.220-11.123 described in Chapter 14. The modelling assumptions appear to be generally conservative, it is feared that the modelling may have underestimated operational noise near Pittsworth. This is of particular concern, given that the current modelling has already indicated that Pittsworth is a problem area in regard to operational noise.</p>	<ol style="list-style-type: none"> The final EIS should further explore options for noise mitigation (on both sides of the proposed alignment) near Pittsworth, particularly those within line of sight of the alignment. The eventual noise mitigation measures should be commensurate with the number of affected people. It is believed that lowering the elevation of the currently proposed rail line to ground level (or below) at the Oakley Pittsworth Road, and Lochaber road crossings would substantially alleviate operational noise impacts. After lower of tracks earthen mounds on both sides of the track can be placed Provide estimate in the EIS of how much additional cost would be incurred by lowering the Section of track passing Pittsworth as described above. 	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The DTMR Interim Guideline only requires an impact area of up to 150 metres from the railway.</p> <p>As noted in Section 2.8 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Chapter 16: Noise and Vibration Section 16.10 Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
226	226.0004	Private	Social Impact Assessment		Section 6.2: Table 17. Correction required. Please replace St Peters Catholic Church with St Stephens Catholic Church.	Please replace St Peters Catholic Church with St Stephens Catholic Church.	The Project alignment has been revised following public submission of the draft EIS. St. Peters Catholic Church and St Stephens Catholic Church are not mentioned within the revised draft EIS.	N/A
226	226.0005	Private	Landscape and Visual Amenity		<ol style="list-style-type: none"> The proposed embankment extending either side of the Oakley - Pittsworth Road to the north-west of Pittsworth, will be up to 14 m high to the west of the Oakley-Pittsworth Road. This, and the associated rail over road crossing are of concern regarding visual amenity. Section 15.4: The barriers proposed barriers, particularly the option 1 barrier, will likely exacerbate the visual impact. The current modelling indicates that barriers will only be required on the southern side of the track adjacent to Pittsworth. 	<ol style="list-style-type: none"> Lowering the elevation of the currently proposed rail line to ground level (or below) at the Oakley Pittsworth Road, and Lochaber road crossings would substantially alleviate the visual impacts for residents on both sides of the 168-72 km section of proposed alignment passing Pittsworth. 	<p>The Landscape and Visual Impact Assessment (Appendix K: Landscape and Visual Impact Assessment) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered.</p> <p>The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design.</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and managers.</p> <p>ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community.</p> <p>As noted in Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95
227	227.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goodindwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kaganu Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
227	227.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
227	227.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
227	227.0006	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
228	228.0001	Private	Land Use and Tenure		The submitter is writing on behalf of InterLink Global Logistics Pty Ltd ATF InterLinkSQ Global Logistics Centre Trust and Freight Terminals Pty Ltd ATF InterLink Industrial Park Trust (together Interlink). Interlink is the proponent for the InterlinkSQ intermodal freight terminal and logistics park Project located at Draper Road, Charlton. InterlinkSQ is strategically located at the convergence of the Inland Rail route with the existing QR Western Line and has been designed to integrate with both rail corridors. Isolation of Land Due to the way that the inland rail route approaches the existing railway line immediately to the south of Gowrie Creek, it results in the isolation of small pieces of Lot 33 outside of the resumption boundary. These pieces total an area of 2.23 hectares. Due to the small and irregular shape of these pieces of land and their stranding from the rest of the terminal by both the inland rail route and stormwater easement, they are rendered useless and do not have any value to Interlink. Therefore it is submitted that they should be included in the resumption.	The land should be included in the resumption.	<p>ARTC has been in discussions with Interlink and will continue to work with them through the detailed design stage.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the AL Act.</p> <p>Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.2of the revised draft EIS for further detail.</p> <p>Details on consultation undertaken through the reference design process is provided within Appendix E: Consultation Report.</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Appendix E: Consultation Report</p>
228	228.0002	Private	Land Use and Tenure		Conflict with terminal position. A large temporary works zone is proposed to be established in generally the same position as the terminal footprint, which we understand is to be used for equipment and materials storage associated with construction of the railway. However, being in the position that is proposed, it will effectively prevent construction and operation of the terminal via the approved connection to the existing QR narrow-gauge railway. This presents a substantial delay of approximately 3 years to the commencement of the Project and loss of potential income during this period.	It is submitted that the temporary works zone should either be relocated or designed to provide a seamless transition to intermodal operations upon completion of railway construction activities.	<p>ARTC notes the existing rail facility location may not align with Interlinks future use plans and will work with Interlink through the detailed design stage to locate the facility in the most appropriate location on its site. ARTC has been in discussions with Interlink and is aware it is supportive of the facility being located on its site subject to agreement on the final location.</p> <p>ARTC will continue discussions with Interlink. Open channel of communication between ARTC and the operators of InterLinkSQ to establish a shared understanding of construction, operation and maintenance schedules for both Projects. This information sharing will be used to inform in advance of the timing and scope of activities in the area; and potential impacts or interruptions to access or property operational arrangements.</p> <p>Details on consultation undertaken through the reference design process is provided within Appendix E: Consultation Report.</p>	<p>Appendix E: Consultation Report</p>
228	228.0003	Private	Land Use and Tenure		Stormwater impacts. Currently the Inland Rail design assumes that the existing pre-development flow rates and extents will be maintained. However, a stormwater management plan (Approved under Toowoomba Regional Council Planning Approval RAL/2015/1854/F) has been prepared for the InterlinkSQ Project which involves works within the existing stormwater easement to integrate with a realignment of the corridor upstream of the existing QR railway culverts. In addition, a further diversion. Channel is proposed before reaching the QR railway culverts to direct excess flow directly to Gowrie Creek adjacent to the existing railway bridge over this waterway (which avoids the stormwater runoff from crossing below the railway corridor twice).	It is submitted that the culverts and embankments associated with the new railway should be designed to accommodate these stormwater management arrangements.	<p>The hydraulic model for Gowrie Creek has been revised since the publication of the draft EIS, to factor in review comments made by the Independent International Expert Flood Panel, appointed by the Australian Government. The Gowrie Creek model now includes the engineering works associated with the approved Stormwater Management Plan for the InterlinkSQ Project.</p> <p>The revised draft EIS will include the updated modelling results.</p> <p>Where changes to surface water and hydrology are identified, nominated Flood Impact Objectives (FIO) have been developed to provide guidance and consideration to indirect impacts on particular land uses (Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 and Chapter 13: Surface Water).</p> <p>The Project will target achieving the FIOs for events up to and including the 1% AEP for land, receptors, and/or infrastructure, and where the FIOs are met, it is reasonable to assume there will be no adverse impacts from flooding on the use of land. Where it is not practicable or feasible to achieve the FIOs at flood sensitive receptors and/or the nominated land uses, acceptable impacts and/or appropriate mitigation measures will be determined on a case by case basis, including through consultation with stakeholders and landholders.</p> <p>Flood Impact Objectives (FIOs) were developed in consultation with the International Independent Panel of Flood Experts to provide guidance as to the point at which a more detailed consideration of impacts is required when they are exceeded. The FIOs include guidance with regard to potential changes in flood flow velocities caused by the Project, with reference to Erosive Threshold Velocities (ETVs). The FIOs are presented in Chapter 14: Flooding and Geomorphology.</p> <p>An assessment was carried out to determine FIO exceedances as a result of the Project and is presented in Chapter 14: Flooding and Geomorphology. This assessment also addresses potential velocity exceedances that may lead to an increased risk of erosion and scouring. It is important to note that an FIO exceedance would not necessarily cause an impact.</p>	<p>Chapter 13: Surface Water Chapter 14: Flooding and Geomorphology Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2</p>
228	228.0004	Private	Land Use and Tenure		Loss of access <ul style="list-style-type: none"> There is an existing dwelling located on Lot 29 (167 Draper Road) which presently gains access from the north via a driveway connecting with the existing road reserve running parallel to the QR railway corridor. Both the driveway and the road will be consumed by the inland rail resumption effectively isolating this dwelling from the road network. 	It is submitted that as part of the railway construction works that an alternative driveway access to an equivalent standard be provided between the dwelling and Draper Road to the east, including a suitable crossing of the stormwater easement.	<p>The Project will result in the severance of driveways and informal private access roads to individual properties. Refer to Chapter 8: Land Use and Tenure, Section 8.5.1 for further detail.</p> <p>As stated in Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51, the detailed design for the Project will be developed to ensure that legal access for private properties is maintained.</p> <p>ARTC will continue to consult with potentially impacted landowners through the detailed design and Pre-construction Activities and early works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect property access.</p> <p>In cases where the acquisition of the portion of a property will cause land locked, commercially unviable and/or inaccessible parcels of land, ARTC will consider acquiring the unusable portion of the lot to avoid impacts to landowners and mitigate impacts to access. In cases where the severance of property impacts a landowner's access to transport routes or water sources, ARTC will install or reinstate necessary infrastructure to maintain continuity (Chapter 8: Land Use and Tenure, Section 8.6.2).</p>	<p>Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Table 8-51</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
229	229.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project. 	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
229	229.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
229	229.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
229	229.0006	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. 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Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Section 5.5 Section 6 Section 6.4 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
230	230.0001	Private	Project alignment		The submitter is a resident of Pittsworth and the comments raised are in relation to this region. He is critical of the proposed Project route. He thinks that the Coordinator General needs to be assured, independently, that the overall route selection is in fact the best option in terms of achieving the Projects objectives and with the least impact on communities that will in essence receive little long-term benefit from the rail line but will be required to bear the bulk of the impact for the indefinite life of the Project.	He proposes an alternative route to save time. He states that a shorter route with lower travel time would be from the border crossing near Yelarbon and then head essentially due east along existing QR rail corridor to near Warwick and then down the range and then directly to Kagaru. This route will probably have less environmental and social impacts for the communities along the rail route.	Consideration has been given to a Warwick alternative alignment. In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/ revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it also became evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development. The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route. In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie. <ul style="list-style-type: none"> Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017. Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined 2-km-wide study area is referenced within Section 2.8 of Chapter 2: Project Rationale of the revised draft EIS, which describes the route selection process for the proposal, both before and after confirmation of the study area. Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports). The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.	Chapter 2: Project Rationale Section 2.8 Appendix E: Consultation Report
230	230.0002	Economics			The submitter highlights that the claims made in the draft EIS (i.e. the Project has the potential to stimulate business and industry development at the Toowoomba Enterprise Hub in Wellcamp and has the potential to unlock greater economic activity in the region) are not supported by rigorous/robust modelling justifying the objectives.	Nil.	ARTC notes that the development of intermodal terminals and other supporting freight infrastructure at Wellcamp is outside of the scope of the Border to Gowrie EIS. However, the EIS demonstrates as part of the Inland Rail Program, the Project has the potential to stimulate business and industry development at the Toowoomba Enterprise Hub in Wellcamp by providing efficient transport access to intrastate and interstate markets. As such, the Project may act as a catalyst for further private sector investment in the wellcamp area, particularly for freight and logistics operations and intermodals. For further information on possibilities for regional benefits refer Sections 18.7 and 18.8 in Chapter 17: Economics. Section 18.6 of the revised draft EIS identifies the following benefits from improvements in freight efficiency which may benefit businesses in Wellcamp: <ul style="list-style-type: none"> Operating cost savings of \$320.07 m (at 7% discount rate) in present value terms as freight shifts from road to rail. Higher capacity trains and improved transit times resulting in lower rail operating parameters (unit rates drop from \$0.044 – \$0.036 per NTK in the Base Case down to \$0.019 – \$0.018 NTK in the Project Case for agricultural freight. Freight service availability (\$144.86 m) and reliability benefits of (\$41.03 m) million in present value terms at 7% discount rate. Freight time savings of \$33.96 m in present value terms at 7% discount rate. These benefits may attract significant investment in freight and logistics to already established precincts such as Wellcamp. In addition, the Australian Government will contribute up to \$10 million for a joint business case to consider the development of an intermodal terminal in Brisbane to support Inland Rail. The Australian and Queensland governments will jointly undertake a detailed business case considering the terminal location and matters including market access/ operating models, financing options and value capture opportunities. Refer to link: https://investment.infrastructure.gov.au/projects?Project_id=11245-20QLD-MRL#:-:text=The%20Australian%20Government%20will%20contribute,Brisbane%20to%20support%20Inland%20Rail .	Chapter 18: Economics Section 18.7 Section 18.8
230	230.0003	Economics			The Inland Rail is primarily a bulk commodity transport operation – large volumes of bulk agricultural commodities going from the place of production to export ports or centralised processing operations. There is no synergy between a bulk freight operation like inland rail and a niche and high value commodity – e.g. fresh exotic vegetables and fruit, fresh flowers, fresh prime beef cuts etc export operation through Wellcamp. The high value agricultural areas in this region is the Lockyer and Fassifern Valleys and the Granite Belt so it is very unlikely that a fruit and vegetable grower is going to put their produce onto a train and send it to Wellcamp by rail for subsequent air freight overseas. He also records that a train from Melbourne will not really stop and unload or load containers at a point that is just over an hour (at design speed of 115 km/hr), from the final terminus end of the line, or conversely is a train that has just started its journey from Brisbane going to stop at Toowoomba to take on freight to take down to Melbourne. All these points make him question the economic rationality of the Project in the context of the proposed rail line.	It would be more cost effective to take that commodity directly by road or existing rail direct to Brisbane for loading at the Port of Brisbane or processing. Freight transfer hubs should be arranged in places like Parkes (NSW) and Yelarbon/ Goondiwindi which are at middle of the rail line and producing areas. He does not propose Toowoomba as it is at one end of the line and also on the edge only of the grain and cotton production areas. For a grain and cotton grower from the western Darling Downs, Goondiwindi region and the eastern Maranoa areas it is probably a cheaper exercise to transport their commodities to Yelarbon or similar for transfer to rail than to Toowoomba.	The Inland Rail program meets demand for certain freight types, however it is acknowledged that the broader freight network covers road, rail and air freight. The 2015 Rail Programme Business case identifies the Project will enhance competition between rail and road freight, by providing a credible transport alternative, which will drive further innovation and efficiency. This is supported by the economic analysis undertaken in the revised draft EIS for Border to Gowrie. More recent modelling to identify the potential value of Inland Rail to businesses has been conducted in partnership with CSIRO in the Inland Rail Supply Chain Mapping Technical Report 2022. Key findings can be found here - inlandrail.gov.au/sites/default/files/documents/Inland%20RailSupply%20Chain%20Mapping%20Key%20Findings.pdf . Key findings of the Supply Chain Mapping study revealed that switching supply chains to Inland Rail could save \$213 million on transport costs each year across 22 million tonnes of freight. For existing road-based supply chains, by switching to Inland Rail for at least part of their journey, early results show these supply chains have the potential to capture annual transport cost reductions of about \$170 million. Of this, the annual transport cost reduction for freight moving between Melbourne and Brisbane could be \$75 million, representing a transport cost reduction of around 44%. For existing rail-based supply chains, it is estimated Inland Rail is likely to deliver an annual cost reduction of about \$21 million by switching to Inland Rail for at least part of their route. Of this, the annual transport cost reduction for existing rail freight moving between Brisbane and Melbourne would be about \$15 million, representing a transport cost reduction of about 27%. All assumptions relating to demand modelling, including the connection to intermodal terminals or other supporting freight infrastructure, are considered in the Inland Rail Program Business Case (2015). The EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals or supporting freight infrastructure) or Project options is outside the scope of this EIS. It is noted the location of intermodal will have a material impact on the way benefits of Inland Rail are realised. The current reference design for the revised draft EIS for Border to Gowrie does not include sidings at these locations to accommodate the transport of agricultural produce directly to the Port of Brisbane. This does not preclude ARTC or another 3rd party constructing such a facilities at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment, and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, can occur a later date should there be identified a future need for such rail infrastructure at these locations. In addition, the Commonwealth government has committed up to \$20 M with a joint funding arrangement with the Qld government to progress the Port of Brisbane Strategic Rail Access Study. The study is expected to be completed in 2023. Refer to link: investment.infrastructure.gov.au/Projects/ProjectDetails.aspx?Project_id=104938-19QLD-MRL	Chapter 18: Economics Section 18.8 Section 18.9
230	230.0008	Economics			One of the stated longer term benefits of the Inland Rail is to move more bulk commodity freight from road to rail. Doing this would provide a reasonable benefit to communities along the Gore Highway as it will hopefully mean that there will be lesser numbers of multi-trailer grain and other agricultural haulage trucks on the road from the grain producing areas to the port and centralised processing facilities. The EIS in its determination of forecast train numbers makes reference to trains with Queensland grain from Yelarbon and Narrabri to Fisherman's Island and trains hauling Queensland cotton. However, despite these movements being included in the train forecasts and presumably in the financial justification for the Project, the development of these freight hubs does not appear to be part of the overall ARTC Project scope and so there is no guarantee or commitment that this bulk grain and cotton haulage will occur with the subsequent reduction in trucks on the road.	Provide some surety that the subsequent benefits will accrue then as a condition of any EIS approval ARTC should be required to include this bulk freight loading and transfer infrastructure in the initial Project construction scope. This will then provide real incentive for ARTC to make this happen and deliver the cost benefit for the producers and the environmental benefit to the communities for the reduction in truck numbers. The EIS and any approvals should stipulate targets for the amount of grain and other commodities transferred to rail haulage on a year by year basis that are transparent to the community and that become a measure of the success of the Project from a regional and impacted community perspective.	The Inland Rail program meets demand for certain freight types, however it is acknowledged that the broader freight network covers road, rail and air freight. The 2015 Rail Programme Business case identifies the Project will enhance competition between rail and road freight, by providing a credible transport alternative, which will drive further innovation and efficiency. This is supported by the economic analysis undertaken in the revised draft EIS for Border to Gowrie. More recent modelling to identify the potential value of Inland Rail to businesses has been conducted in partnership with CSIRO in the Inland Rail Supply Chain Mapping Technical Report 2022. Key findings can be found here - inlandrail.gov.au/sites/default/files/documents/Inland%20RailSupply%20Chain%20Mapping%20Key%20Findings.pdf . Key findings of the Supply Chain Mapping study revealed that switching supply chains to Inland Rail could save \$213 million on transport costs each year across 22 million tonnes of freight. For existing road-based supply chains, by switching to Inland Rail for at least part of their journey, early results show these supply chains have the potential to capture annual transport cost reductions of about \$170 million. Of this, the annual transport cost reduction for freight moving between Melbourne and Brisbane could be \$75 million, representing a transport cost reduction of around 44%. For existing rail-based supply chains, it is estimated Inland Rail is likely to deliver an annual cost reduction of about \$21 million by switching to Inland Rail for at least part of their route. Of this, the annual transport cost reduction for existing rail freight moving between Brisbane and Melbourne would be about \$15 million, representing a transport cost reduction of about 27%. All assumptions relating to demand modelling, including the connection to intermodal terminals or other supporting freight infrastructure, are considered in the Inland Rail Program Business Case (2015). The EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals or supporting freight infrastructure) or Project options is outside the scope of this EIS. It is noted the location of intermodal will have a material impact on the way benefits of Inland Rail are realised. The current reference design for the revised draft EIS for Border to Gowrie does not include sidings at these locations to accommodate the transport of agricultural produce directly to the Port of Brisbane. This does not preclude ARTC or another 3rd party constructing such a facilities at a later date. Such facilities would require a specific business case, a review of the operational efficiencies of the Inland Rail alignment, and be subject to further approvals. Discussions with key stakeholders, including major agricultural producers, can occur a later date should there be identified a future need for such rail infrastructure at these locations. In addition, the Commonwealth government has committed up to \$20 M with a joint funding arrangement with the Qld government to progress the Port of Brisbane Strategic Rail Access Study. The study is expected to be completed in 2023. Refer to link: investment.infrastructure.gov.au/Projects/ProjectDetails.aspx?Project_id=104938-19QLD-MRL	Chapter 18: Economics Section 18.8 Section 18.9
231	231.0002	Private	MNES	Koala	In the draft EIS, the MNES map shows essential habitat north-east of Pittsworth and north-west of Southbrook. This map fails to show Essential Habitat that exists west of Pittsworth (similar to the Essential Habitat shown) and any Wildlife Habitat at all, which is completely erroneous. To use existing Nature (Koala) Conservation Plan 2017 mapping for the draft B2G EIS is inappropriate and unsatisfactory - and irrelevant for the Pittsworth and Southbrook Koala populations.	The EIS should incorporate ground relevant mapping and/or include the next version of the Koala habitat map, due for release in April 2021.	Additional surveys were conducted by Cardno and AusEcology in spring, summer and autumn 2021 and by AusEcology in autumn 2022 to verify the presence of REs and threatened ecological communities (TEC) within the Project footprint. Essential habitat is mapped in Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Sections 4 and 5
231	231.0004	Private	Flora and Fauna	Koala	The draft EIS outlines the predicted Koala habitat within the impact assessment area (ha) - Table 10.20 shows that Koalas have the largest area of predicted habitat of all fauna species, except two vagrant dispersive birds, the grey falcon and white-throated needletail, neither of which live in the region. The total Koala habitat is listed as 8091 ha, of which 98 per cent is listed 'habitat critical to the survival of the species'. This 8091 ha statistic is a hundredfold contradiction of the statistic in Table 10.13 (Section 10.5.5) which lists only 81.73ha as 'Koala Habitat Areas'. The draft EIS is inconsistent. The error in Table 10.13 lies in the draft EIS reliance on the state government's Nature (Koala) Conservation Plan 2017 mapping, which is incomplete.	Nil.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from AusEcology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS. The inconsistencies with reporting Koala habitat mapping in the draft EIS has now been updated in the revised draft EIS to more accurately reflect the more detailed survey data. Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan (DKMP). This will be standalone appendix for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. The DKMP provides additional information Koala habitat and records of the species along the alignment. Refer to Appendix E: Consultation Report, Consultation Outcomes.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix M: Draft Koala Management Plan
231	231.0005	Private	Flora and Fauna		The draft EIS outlines - Table 10.26 rates the Restoration of Disturbed areas, including revegetation, as causing short-term Duration of Disturbance, which it classifies as 6 to 12 months. The submitter outlines that in the variable low rainfall climate of the Darling Downs, revegetation of disturbed areas is not short-term. Environmental disturbance can take decades to repair and need constant surveillance and maintenance.	The EIS should specify which party will be responsible in terms of monitoring and costs to ensure successful restoration of disturbed areas.	In Chapter 11: Flora and Fauna of the revised draft EIS, the Duration of Disturbance for Restoration of Disturbed areas has been updated to 'Temporary' meaning days to months (e.g. 1 to 2 seasons; 3 to 6 months). Chapter 11: Flora and Fauna proposed mitigation measures includes development of a Rehabilitation and Landscaping Management Plan for the Project, as a component of the CEMP. Reinstatement, stabilisation, rehabilitation and landscaping of disturbed areas will be undertaken progressively as work fronts are completed. The Rehabilitation and Landscaping Management Plan will establish the procedures, timeframes, measurable performance objectives, responsibilities for monitoring the success of rehabilitation and/or reinstatement/ stabilisation areas and proposed corrective actions if the outcomes of rehabilitation and/or reinstatement/ stabilisation are not achieved. Chapter 11: Flora and Fauna provides a summary of the auditing, monitoring and reporting requirements for the Project.	Chapter 11: Flora and Fauna Section 11.6 and 11.7

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
231	231.0006	Private	Flora and Fauna	Koala	DNA investigation would be important to establish if there are substantive links between the Yarranlea, Pittsworth and Southbrook Koalas and other populations south and west of Millmeran and towards the far Eastern Darling Downs. Any such links would be severely impacted by the Inland Rail with permanent and possibly irretrievable consequences. The EIS needs to apply realistic criteria to calculations of Disturbance impacts. The proponent should be required to conduct detailed survey work of Central Downs Koalas, including DNA analysis. Pittsworth Landcare offers to work in partnership with the proponent in such survey work to impart critical local knowledge.	The draft EIS outlines - Table 10.26 rates the Duration of Disturbance caused by Cutting construction during the construction phase as Medium Term (2 to 10 years). The submitters states that construction of a cutting is not a Medium Term Disturbance to Koalas and other wildlife. It is permanent, as are embankments, bridges and re-alignments of roads. Vegetation clearing, fencing and the rail line barrier will destroy connectivity will be lost permanently.	Post the release of the draft EIS for public notification, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated species habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The data from the technical ecological assessment from Ausecology (2022) as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC), was used to support the development of key species management plans. This information is present in Chapter 11: Flora and Fauna. Appendix L: Terrestrial and Aquatic Ecology Technical Report outlines that a review of existing literature and previous studies was conducted which included gathering information on species diversity, abundance and distribution. Field surveys were also conducted to verify the presence of threatened species and ecological communities within the impact assessment area. As noted in Appendix L: Terrestrial Ecology and Aquatic Technical Report, the mapped areas of Koala habitat does not reflect the entire extent of Koala habitat in the Project footprint as there is also vegetation within and surrounding the Project footprint. Mitigation measures and controls have been factored into the Project to reduce the impact on the affected species. In addition, mitigation and management measures have been proposed in Chapter 24: Draft Outline Environmental Management Plan. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. In addition, ARTC has commenced two key research initiatives relating the Koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study Koala genetics that focusses on population genetics and dietary analysis for Koalas across eight of the Inland Rail Projects. The purpose of this study to: <ul style="list-style-type: none"> ➤ Increase baseline data on Koala population resilience and restoration requirements. ➤ Informs Koala conservation controls as required in conditions of approval. ➤ Informs fauna connectivity plans. ➤ Informs Koala offset management decisions. ➤ Contribute to Infrastructure Sustainability Council credits. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Appendix L: Terrestrial and Aquatic Technical Report Appendix M: Draft Koala Management Plan
231	231.0007	Private	Flora and Fauna	Koala	The draft EIS states - 10.9.2 Fauna Species Injury or Mortality claims that 'larger species with defined territories and movement patterns (e.g. Greater Glider and Koala) are less likely to be at risk to direct mortality where appropriate mitigation measures are applied'. The same paragraph claims this risk will be highest 'during construction'. The submitter states - The risk posed to Koalas by the railway and associated fencing will be permanent and deadly. Koalas climb fences. They will be prone to being stuck on fences, injured by wire or trapped inside fences.	The EIS needs to fully explain how this permanent threat to Koalas will be addressed, and which party will be responsible for, and pay for, the treatment of injured and stranded Koalas.	Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. The revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design stage. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy) The revised draft Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy. A standalone fauna management plan (Appendix N: Draft Fauna Management Plan) has been provided in the revised draft EIS. The fauna management plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter/Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan. Where impacts to threatened species habitat cannot be avoided, mitigation and management measures will be implemented. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the construction works and operations stages. Impact mitigation will include pre-clearance surveys prior to disturbance. Management and mitigation measures to protect vulnerable and endangered species are proposed in Chapter 24: Draft Outline Environmental Management Plan. In instances where a significant residual impact as identified by the relevant EPBC Act significant assessment criteria, biodiversity offsets will be secured (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report, Section 8). ARTC will provide biodiversity offsets in accordance with the relevant State or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie.	Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
231	231.0008	Private	Flora and Fauna	Koala	➤ Draft EIS states 'Opportunities for the provision of fauna fencing have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate.' The submitter asks about who will oversee these unknown and unspecified changes to be refined and incorporated, and when and how they are to be assessed as being appropriate and by whom?	These 'opportunities' should be spelled out in the EIS document, not at some later date without proper scrutiny.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft, Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of Appendix P: Fauna Connectivity Strategy. Appendix N: Draft Fauna Management Plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter/Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
231	231.0009	Private	MNES		Table 10.30 Proposed Mitigation measures Specific to Matters of National Environmental Significance includes - Establish and maintain a fauna management and incident register to record sightings and/or incidents involving fauna species during the undertaking of Project activities.	Pittsworth Landcare requests that this register be publicly available, updated within 48 hours, and that a quarterly report be generated from the information. As the districts lead organisation in local wildlife and environmental matters, Pittsworth Landcare further requests that its nominee be notified as soon as practicable of all sightings and incidents	As part of the proposed mitigation measures, Chapter 11: Flora and Fauna presents a summary of inspections, monitoring, auditing and reporting to be undertaken for the Project. Inspections, monitoring, auditing and reporting will be undertaken to document compliance with imposed conditions, the CEMP and Operation EMP. Registers will be maintained and made available in accordance to the requirements of the imposed conditions for the Project as well as the CEMP and OEMP.	Chapter 11: Flora and Fauna Section 11.6
231	231.0010	Private	Flora and Fauna		ARTC is committed to implementing ongoing monitoring of the effectiveness of the measures with contingency (under an adaptive management framework) to change/improve management strategies where deleterious impacts to the identified environmental values are observed, or are not minimised, as per the objectives of the proposed measures. The submitter asks how monitoring will be conducted and by whom? Also who will arbitrate the effectiveness of measures?	The EIS should specify the adaptive management framework and the monitoring schedules to be used.	The 'adaptive management framework' (referenced in Chapter 11: Flora and Fauna) will facilitate change and improvement to the management strategies where the objectives of the proposed measures are not met. A Draft Fauna Management Plan has been prepared for the Project (Appendix N: Draft Fauna Management Plan) which identifies specific management, monitoring, reporting and performance requirements for the Project. In addition, Chapter 11: Flora and Fauna notes that as the Project moves into the detailed design and construction works stages, more focused and comprehensive ecological surveys in accordance with the Commonwealth's survey guidelines will be undertaken under the Project's Biodiversity Plan. Targeted surveys will be conducted in parallel to developing the detailed design and will identify the actual occurrence/extent of threatened ecological communities (TEC) within and adjacent to the Project footprint and the presence of threatened species and/or habitat suitable to supporting the presence of threatened species. Surveys will be carried out as per diagnostic criteria and condition thresholds outlined in community-specific approved conservation advice (for TECs) and relevant survey guidelines (for threatened fauna). The surveys aim to address any changes to the revised reference design and Project footprint, along with informing the design and construction, including specific measures to avoid, mitigate, minimise impacts on a particular species or TECs, along with ongoing monitoring activities. The overarching CEMP for the Project will establish the procedures, timeframes, measurable performance objectives, responsibilities for monitoring and propose corrective actions if performance outcomes are not achieved (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix N: Draft Fauna Management Plan
231	231.0011	Private	MNES		EIS terms of reference 11.27 proscribes that the EIS 'should describe any mitigation measures proposed to reduce the impact on the listed threatened species'. To say 'a specific goal might be' is not a measurable condition. Surely the intent is that EIS goals should be specific and measurable, not simply recommended to be so later on.	The EIS needs to include specific goals to measure the effectiveness of wildlife crossing structures and consequences that would follow. Fauna crossings must be provided at regular intervals in the Pittsworth Southbrook area.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingleswood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). The revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy) proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy). Both Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy provide recommendations on the proposed monitoring regime to determine effectiveness of fauna connectivity structures including an adaptive management framework.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
231	231.0013	Private	MNES	Offsets	The EIS provision for offsets is so vague as to be non-existent. It is insufficient for an EIS to merely promise a plan sometime in the future.	The EIS needs to include a credible Environmental Offset Delivery Plan and Offset Area Management Plans.	<p>The updated Border to Gowrie Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie has been developed as a standalone Project specific offset strategy to align with both Commonwealth and State environmental offset policies and guiding principles. The Project Environmental Offset Delivery Strategy (EODS) has been amended as part of the revised draft EIS to recognise all approval requirements prior to Project impacts. Appendix Q: Environmental Offset Delivery Strategy details matter specific management intent for each predicted impacted matter (MNES/ MSES) detailed across each of the offset properties being presented.</p> <p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie includes discussion pertaining to OAMPs.</p> <p>OAMPs will be developed for each proposed offset site and submitted for Commonwealth and State Government approval. Approval of each OAMP will be required prior to construction commencement. The goal of the OAMPs will be to achieve habitat quality gains at each offset site for each respective matter, while maximising landscape conservation outcomes by increasing resilience of self-sustaining communities and populations and improving connectivity within the region. Each OAMP will be developed generally in accordance with the Environmental Management Plan Guidelines (Commonwealth of Australia, 2014) and will define as a minimum:</p> <ul style="list-style-type: none"> Offset area details Conservation outcomes and associated management actions for each MNES/ MSES Additional management action requirements for co-located MNES/ MSES Monitoring activities and timeframes Performance criteria to be achieved for each MNES/ MSES and interim milestones Corrective actions and triggers for corrective actions <p>Auditing and reporting.</p>	Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
231	231.0014	Private	Flora and Fauna	Koala	Table 10.35 Estimation of Potential Magnitude of Disturbance for Sensitive Environmental Receptors rates the percentage disturbance to Koalas as 9.1%, or Moderate (i.e. less than 13%). This table mis-represents the disturbance risk to Central Downs Koalas.	The OCG should request the proponent conduct detailed baseline DNA testing before construction and schedule ongoing DNA testing for 10 years after construction to determine whether gene flow was happening and whether fauna crossings were working or not.	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report outlines that a review of existing literature and previous studies was conducted which included gathering information on species diversity, abundance and distribution. Field surveys were also conducted to verify the presence of threatened species and ecological communities within the impact assessment area. As noted in Appendix L: Terrestrial and Aquatic Ecology Technical Report the mapped areas of Koala habitat does not reflect the entire extent of Koala habitat in the Project area as there is also vegetation within and surrounding the Project footprint. Mitigation measures and controls have been factored into the Project to reduce the impact on the affected species.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan.</p> <p>In addition, ARTC has commenced two key research initiatives relating the Koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study Koala genetics that focusses on population genetics and dietary analysis for Koalas across eight of the Inland Rail Projects. The purpose of this study to:</p> <ul style="list-style-type: none"> Increase baseline data on Koala population resilience and restoration requirements. Informs Koala conservation controls as required in conditions of approval. Informs fauna connectivity plans. Informs Koala offset management decisions. Contribute to Infrastructure Sustainability Council credits. 	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
231	231.0015	Private	Flora and Fauna		The Inland Rail line will indisputably have Major residual impact on Pittsworth and Southbrook Koalas, in terms of preventing connectivity, fragmenting habitat, and producing noise and light disturbance. All of these factors place the local Koala population at greater risk of extinction.	The draft EIS be revised in order to present consistent, credible management plans.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS: Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>The Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy) proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>Both the Draft Koala Management Plan and Fauna Connectivity Strategy provide recommendations on the proposed monitoring regime to determine effectiveness of fauna connectivity structures including an adaptive management framework.</p>	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy
231	231.0016	Private	MNES	Mitigation measures	Draft EIS Table 10.38 (Initial Assessment of Significance of Impacts of the Project on Identified Sensitive Environmental Receptors) rates the Project's residual impact on Koalas during its operation phase as 'Negligible' in magnitude and 'Low' in significance. That assessment is also wrong.	The EIS should prescribe who is responsible to 'make good' or compensate if mitigation processes prove unsuccessful?	Chapter 11: Flora and Fauna of the revised draft EIS outlines that ARTC is committed to implementing ongoing monitoring of the effectiveness of the Project's management measures with contingency (under an adaptive management framework) to change/ improve management strategies where deleterious impacts to the identified ecological values are observed, or are not minimised, as per the objectives of the proposed mitigation measures.	Chapter 11: Flora and Fauna Section 11.5
231	231.0017	Private	MNES		Table 10.39 (Summary of significant impact assessment of EPBC Act controlling provisions of the Project) states that the Project will have 'Likely significant residual impact' on Koalas. This assessment is accurate. Given the vulnerable status of Koalas, the EIS needs to be much stronger.	The EIS needs to be more detailed and more prescriptive of responsibilities to explain how significant residual impacts will be mitigated.	<p>Impacts to ecological values will be avoided where possible and then minimised and mitigated to the greatest extent practicable (see Chapter 11: Flora and Fauna). Residual impacts are those impacts that remain after the implementation of an avoidance hierarchy and mitigation measures.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS: Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>It is expected that environmental offsets will be required and Chapter 11: Flora and Fauna provides discussion on how ARTC proposes to provide its offset obligations for the Project. In addition ARTC's Environmental Offset Delivery Strategy—Qld (Strategy) has been developed for the Project and is provided as Appendix Q: Environmental Offset Delivery Strategy.</p>	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix Q: Environmental Offset Delivery Strategy Appendix M: Draft Koala Management Plan
231	231.0018	Private	Stakeholder Engagement	Koala	Given the inadequacies of the Koala surveys that have informed the EIS, Pittsworth Landcare requests that its members be consulted during any further 'detailed ecological surveys'.	The EIS should require the proponent to undertake further Koala surveys, prior to any approvals, inviting the participation of Pittsworth Landcare members and other local residents. The survey results should be publicly available and a consultation period for public comment enacted.	<p>It is acknowledged that the submission identifies numerous inconsistencies in the road rail interface identification and reporting. These inconsistencies have been corrected in the revised draft EIS. Appendix AA: Traffic Impact Assessment, Section 3.6 outlines all proposed road rail interfaces to be used by the Project. This is further broken down into existing road rail interfaces and proposed new road rail interfaces in Section 3.6, respectively. Furthermore, Appendix L Existing Public Road Rail Interfaces of Appendix AA: Traffic Impact Assessment, provides the mapping of the existing road rail interface locations. A Table has been included below with a summary of the interfaces referenced in the submission as evidence that these inconsistencies have been addressed. However, not all of the listed road rail interfaces have changed for the reasons provided.</p> <p>Summary of updates below:</p> <ol style="list-style-type: none"> 310-5-P-1 is an existing road rail interface. Interface ID changed to 310-5-E-2 and listed in the Table of existing road rail interfaces (Table 3.11). 310-8-E-0 is a relocated existing road rail interface and has been listed in the Table of existing road rail interfaces (Table 3.11). This is consistent with other relocated existing road rail interfaces. 310-16-E-1 is a proposed road rail interface. Interface ID changed to 310-16-P-1a and listed in the Table of proposed road rail interfaces (Table 3.12). 310-42-E-0 is a relocated existing road rail interface. 310-42-E-1 has been closed and relocated to this location (310-42-E-0). 310-42-E-0 is listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent coding with other relocated interfaces. With reference to the example provided by QR, 310-11-E-1 is the original Cunningham Highway LX in Yalarbon. 310-11-P-0 is the relocated Cunningham Highway road over rail grade separation to replace LX. This is inconsistent with the coding of other relocated interfaces. Interface ID changed to 310-11-E-0 and listed in the Table of proposed road rail interfaces (Table 3.12). Interface ID 310-24-P-3 and 310-25-P-1 have been listed in Table 18.24 with 'no crossing provided' treatment. Note the stock route at this location is proposed to be realigned parallel to the southern rail corridor boundary. This is consistent with the coding and listing of other existing road rail interfaces and the respective relocated existing road rail interface. 310-43-E-3 is a relocated existing road rail interface and has been listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent with other relocated existing road rail interfaces. 310-43-E-8 is a proposed road rail interfaces. ID changed to 310-43-P-8a and listed in the Table of proposed road rail interfaces (Table 3.12). 310-46-E-1 is a relocated existing road rail interface and is listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent with other relocated existing road rail interfaces. It is however also listed in the Table of existing road interfaces as 310-46-E-1a, which considers the change to the existing intersection location to no longer be provided. <p>Finally, an overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT Inland Rail Road Rail Interface Methodology.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Table 3.11 Table 3.12 Appendix BT
231	231.0019	Private	MNES	Offsets	Section 10.13.3 Provision of Offsets states 'It is expected that environmental offsets will be required for the Project. An Environmental Offsets Delivery Plan will be developed and implemented by ARTC prior to construction.' The submitter outlines that an Offset Plan should be integral part of the EIS and not a promise to do something in the future.	Pittsworth Landcare requests that its members be consulted during any further 'detailed ecological surveys'.	<p>ARTC has engaged with relevant Local Government Area's, Queensland Trust for Nature (QTFN), Heath Land and Water (HLW) and local community groups as well as conducting numerous targeted consultation sessions with groups including the Pittsworth District Landcare Association Inc and the Toowoomba Wilderness Society to discuss conservation management, initiatives and programs. The Queensland Offset Strategy has formed part of these discussions and Appendix Q: Environmental Offset Delivery Strategy has been developed to help facilitate key components of ARTC's management initiatives.</p> <p>The Queensland Offset Program continues to participate in community and stakeholder engagement opportunities not only to help with the identification of offset priorities but also to develop synergies and alignment relating to the long-term management objectives across the Queensland offset property portfolio particularly relating to strategic conservation priorities and actions.</p> <p>The Environmental Offset Delivery Strategy will form part of the revised draft EIS and will be available for comment as part of the public exhibition and consultation phase of the EIS.</p> <p>During detailed design, ARTC will consult with DAF for the development of the final Environmental Offset Delivery Strategy (Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie) and delivery plans to ensure agricultural values are not adversely impacted by environmental offsets.</p>	Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
231	231.0020	Private	Flora and Fauna		Table 10.32 Estimation of Potential Magnitude of Disturbance to Threatened Flora, Fauna Species rates the degree of disturbance to Koalas, using an unspecified mix of 'predictive habitat modelling, field validation and government GIS datasets'. From this unexplained methodology, Table 10.32 estimates there would be a 6.08% disturbance to 'predicted' Koala habitat between Border and Gowrie. This table seriously underestimates the degree of disturbance to Koalas, particularly in areas where they are locally common but vulnerable. This statistic vastly underrepresents the risk to the known habitat of Koalas in the Pittsworth and Southbrook districts. Pittsworth Landcare estimates the magnitude of disturbance to Koalas on the Central Downs as High (up to 50%), not Moderate (less than 13%) as stated.	Nil.	Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausocology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS. The inconsistencies with reporting Koala habitat mapping in the draft EIS has now been updated in the revised EIS to more accurately reflect the more detailed survey data. Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan (DKMP). This will be standalone appendix for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. The DKMP provides additional information Koala habitat and records of the species along the alignment.	Appendix M: Draft Koala Management Plan Section 2.3
232	232.0001	Private	Surface Water	Directly impacted landowner	The submitter raises issues about how the local scale specifically in relation to their property to understand the impact of the rail on surface water and hydrology has not been done. The proposed alignment will remove the only groundwater bore on their property (RN19886). The alignment also removes two existing dams, which are the only surface water collection points on their property.	Nil.	It is acknowledged that the submitter's property will be substantially impacted by the Project. ARTC is in the process of consulting with landholders to determine an appropriate make-good strategy on a case-by-case basis. Through this process, the measures developed for each impacted property will be unique and commensurate with the level of impact realised. <u>Groundwater bore</u> Where a groundwater bore is expected to be decommissioned or have access/ usage impaired as result of the Project, 'make good' measures will be agreed in consultation with the affected landowners during detailed design. An overview of the draft bore groundwater 'make-good process' is presented on Figure 15-31 and details in Section 15.7.4 of Chapter 15: Groundwater. If the landowner does not accept the 'make good' assessment (either whether there is an impairment in the first place, or the level of impairment), ARTC will: <ul style="list-style-type: none"> Advise the landowner that they are entitled to obtain an assessment from a suitably qualified person (SQP) Advise the landowner that ARTC will pay their reasonable costs Provide ARTC's bore assessment to the landowner for review by the landowner's SQP Advise landowners of their expectations as to the reasonable costs of obtaining a bore assessment. <u>Surface water storages</u> The detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure (Chapter 13: Surface Water, Section 13.6.2 (Table13-16)). This may also include the usage or relocation of stored water and compensation (if applicable).	Chapter 13: Surface Water Section 13.6.2 Table 13-16 Chapter 15: Groundwater Section 15.7.4 Figure 15-31
232	232.0002	Private	Groundwater	Directly impacted landowner	The removal of all groundwater and surface water sources for our farm effectively renders their farm economically unviable and significantly decreases the value of our property. The submitter states that there should be a zero tolerance policy to the removal of all ground and surface water sources on landholder properties. Mitigation measures have been completely inadequate.	Nil.	ARTC has undertaken a groundwater bore survey to confirm the location/ presence of registered bores and to identify any unregistered bores that may be impacted from the Project (water bores - under the Water Act). This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging, etc (Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/ plan) to be intersected by the Project footprint were targeted and landholders were provided an opportunity to be identified via this survey. Revised draft EIS Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users and potential make-good policy and measures, and are detailed in Table 15.20. Groundwater predictive modelling was undertaken to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (cuts most likely to intersect groundwater). The draft modelling results indicated that the extent of drawdown is predicted to extend 10 m to 43 m from the centre of the Project alignment (from the deepest cuts) during the construction works stage. The modelling was updated and further refined as part of the revised draft EIS, see Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6. The results of the bore survey were assessed against the updated predictive modelling to identify/ confirm bores with potential to be impacted by the Project. ARTC is engaged with licenced users/ landholders to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/ substitution make-good solutions are not required.	Chapter 15: Groundwater Section 15.5.4 Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6
232	232.0003	Private	Stakeholder Engagement	Directly impacted landowner	The level of consultation that has occurred with the submitter as directly affected landholders has been completely inadequate. There was limited information released to them. Initially they were advised that rather than severing properties into two, property boundary lines would be considered. This has completely changed now and there seems to be no consideration to adhere to any property boundary lines as has been indicated by ARTC. They have not been made aware of any consultation until after the decision on the proposed alignment had been made. They are deeply concerned that they have not been advised of opportunities for consultation with the "EIS team" as required by the ToR and Stakeholder Engagement Strategy. Even after many requests, they have not been informed regarding any plans for the temporary or permanent resumption of a large portion of their farm or entire property. Different maps and imagery shows varying areas of impacted land on their property, and ARTC did not confirm which of these is correct.	Nil.	Engagement has been undertaken with directly impacted landowners in the study area, including letter, phone calls, one-on-one meetings, as well as broad-scale community engagement activities such as community information sessions and CCC meetings. ARTC's engagement approach with landowners directly impacted by the alignment has been to meet one-on-one where possible. ARTC will continue to consult with landowners during future stages of the Project to ensure they are fully informed of the design process and the proposed mitigation measures specific to their respective properties. This is detailed in Appendix E: Consultation Report, Section 5.1 and Section 5.2. Consultation and engagement of landowners will be ongoing throughout the revised reference design, detailed design, construction works and operations stages of the Project. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners' occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Since the revised draft EIS and this submission, engagement with this landowner has been ongoing, including a one-on-one meeting with the DTMR regarding property acquisition and compensation. ARTC notes that this submitter has met with DTMR and provided with maps outlining the Project impact and possible outcomes of property acquisition.	Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 5.1 Section 5.2
232	232.0004	Private	Groundwater	Directly impacted landowner	The Project will completely remove all groundwater and surface water access from the submitter's property and effectively render it economically unviable, particularly in times of severe drought. It will also reduce future resale value of their farm. The proposed changes to existing road infrastructure, namely the removal of direct access from Paint Mine Road to the Gore Highway presents additional negative economic impacts for their farm business as their business relies on movement of farm machinery between their farm and a nearby farm. The removal of this access will have additional costs for the submitter.	Nil.	ARTC has undertaken a groundwater bore survey to confirm the location/ presence of registered bores and to identify any unregistered bores that may be impacted from the Project (water bores - under the Water Act). This bore survey was comprehensive such that all bores with potential to be impacted could be identified, including bores located in the Project footprint (not related to groundwater impacts) required to be decommissioned to allow for general construction, lay down yards, access tracks, staging, etc (Chapter 15: Groundwater, Section 15.5.4). Real properties (lot/ plan) to be intersected by the Project footprint were targeted and landholders were provided an opportunity to be identified via this survey. Revised draft EIS Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 have been updated accordingly with groundwater users and potential make-good policy and measures, and are detailed in Table 15.20. Groundwater predictive modelling was undertaken to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (cuts most likely to intersect groundwater). The draft modelling results indicated that the extent of drawdown is predicted to extend 10 m to 43 m from the centre of the Project alignment (from the deepest cuts) during the construction works stage. The modelling was updated and further refined as part of the revised draft EIS, see Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3. The results of the bore survey were assessed against the updated predictive modelling to identify/confirm bores with potential to be impacted by the Project. ARTC is engaged with licenced users/landholders to determine an appropriate make-good strategy on a case-by-case basis. This may include avoidance through minimising dewatering impacts, such that replacement/ substitution make-good solutions are not required.	Chapter 15: Groundwater Section 15.5.4 Section 15.6.2 Section 15.7.4 Table 15-20 Appendix U: Groundwater Technical Report Section 6
233	233.0001	Private	General Project opinion - negative		Queensland Rail's review has been undertaken cognisant of its obligations under the Queensland Rail Transit Authority (QRTA) Act and the (Rail Safety National Law (Qld) Act 2017). Queensland Rail is concerned that there is inadequate discussion regarding the roles, responsibilities and general interface risks and management approach where the Inland Rail route overlaps or is to be constructed adjacent to the existing Queensland Rail managed rail corridor. The operation of two railways in close proximity presents complex operational and safety issues, which must be addressed prior to design and construction to avoid long term issues.	Provide additional discussion and detail to address Rail Infrastructure Manager interface management approach	As per the draft EIS Chapter 5: Project Description Section 5.3.3 and Appendix B1: Design Drawings, the revised reference design is planned to be constructed to replace (over the top of) 68 km of existing single Queensland Rail (QR) track. This is derived from Inland Rail's intention to improve QR track condition and alignment and minimising impacts to greenfield land. As described throughout Chapter 8: Land Use and Tenure, by utilising the existing rail corridor and upgrading the track, it minimises or eliminates environmental and land impacts, such as, disturbing habitat, houses, roads, utilities, prime agricultural land, townships and more. Noting design, construction and operability challenges, this proposal provides significant benefits to TMR, QR and their rail customers by: <ul style="list-style-type: none"> Upgrading the formation, ballast, sleepers and rail for these sections. This includes the red-boarded track Section through the Condamine floodplain on the Millmerran Branch Line Line Section was washed out and degraded since 2011 major flood event Track and formation design facilitates 30 tonne axle loads Eliminates existing curves less than 1200 m Improves vertical gradients to a maximum of 1:80 Provides track immunity to top of formation across 1% AEP floodplains Turnout connection into existing QR network and upgrades to dual gauge track provides greater interoperability for rail customers in Queensland As part of ARTCs ongoing engagement with QR and TMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) obligations during Detailed Design, Construction Works and Operations will be clarified. TMR/ QR/ ARTC are working collaboratively to establish a governance structure to address these matters. Further detail on Rail Infrastructure Manager interface management approach is provided in Chapter 3: Legislation and Project Approvals Process, Section 3.4.25.	Chapter 3: Legislation and Project Approvals Process Section 3.4.25 Chapter 5: Project Description Section 5.3.3 Chapter 8: Land Use and Tenure Appendix B1: Design Drawings
233	233.0002	Private	Land Resources	Contaminated land	Clause 11.150 of the Terms of Reference (ToR) requires the EIS to detail any known or potential sources of contaminated land within or adjoining the Project area identified by landholders. Provide results of searches of EMR and/or CLR for the proposed alignment and disturbance areas. Section 7.2 of the EIS Executive Summary describes the existing environment/potential impacts as having only three non-corridor properties currently listed on the EMR. There is no recognition of the 30 km of EMR-listed properties that are situated within the existing rail corridor Section of the proposed alignment. Accurate notation of potential sources of contamination will assist effective management. QR is aware, via search of the official Department of Environment and Science (DES) EMR/CLR register, of 16 rail corridor properties (which are noted as Impacted Properties in Appendix F) being EMR listed for Hazardous Contaminant reasons. These EMR rail corridor properties are Lot 82, SP104976; Lot 1, RP14231; Lot 121, 104977; Lot 14, SP112652; Lot 5, RP14231; Lot 2, RP37133; Lots 102 and 103, SP113905; Lot 22, SP124720; Lot 413, SP119196; Lot 110, MH807356; Lot 21, 120712; Lots 411 and 413, SP119197 as well as Lots 481 and 483, SP119198. These rail corridor properties are predominantly located in and around the populated centres of Brookstead, Pampas, Yelarbon, Gibinbell and Kurumbul. Parts of the rail corridor between these populate centres will be of equivalent age.	Update information to also describe all existing rail corridor properties listed on the State official EMR register.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results will be presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. The investigation included the identification of potential sources of contamination within the impact assessment area through a desktop assessment (Chapter 9: Land Resources, Section 9.4.5) and also included findings from a limited contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Consistent with the requirements of ASC NEPM, the data quality objectives for contaminated land investigations need to be informed by detailed design information (e.g. proposed future re-use of materials). A contaminated land management strategy for any future assessments is provided in Chapter 9: Land Resources, Section 9.6.2 and Figure 9-24.	Chapter 9: Land Resources Section 9.4.5 Section 9.6.2 Table 9-15 Figure 9-24 Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix I: EMR Search Certificates and Soil Laboratory Certificates

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
233	233.0003	Private	Waste and Resource Management	construction waste	Clauses 11.158 and 11.160 of the ToR require the EIS to describe and quantify all expected significant waste stream with respect to Waste Reduction and Recycling Act 2011, EP Regulation 2008, National Waste Policy 2009 and relevant Department of Environment and Science (DES) guideline information. Although the DES document referred to in Appendix 1 has relevance, there are also other applicable DES information sheets. With respect to the EMR rail corridor properties, DES Information Sheet about Overview of Regulated Waste Categorisation, ESR/2019/4749 is also of relevance. Section 2.2 of this DES Information Sheet states this means that the notification, assessment and removal of sites from the EMR CLR will continue to be undertaken against contaminated land assessment criteria only and is not impacted by regulated waste categorisation framework. The waste categorisation provisions of the EP Regulations will not apply to contaminated soil from sites that are on the EMR or CLR. Table 40 of the Executive Summary appears to be inconsistent with this stated intent listing ballast and rail spoil as regulated waste.	Review DES Information Sheet called Overview of Regulated Waste Categorisation to confirm or not whether ballast and rail spoil from EMR listed properties is regulated waste and update Table 40.	Rail spoil has not been classified as a regulated waste within the Executive Summary nor has it been classified as a regulated waste within Chapter 22: Waste and Resource Management (Sections 22.5 Tables 22-6 and 22-8) of the revised draft EIS. It should be noted that Table 22-8 references potentially contaminated solid waste (not spoil, not soil) as a regulated waste. This is to encompass all manner of potentially regulated waste that could arise including sleepers impacted by pesticides, hydrocarbons, heavy metals etc. Ballast is currently the subject of a draft End of Waste (EoW) Code for Recycled Aggregates (ENEW07604819). As a result of ballast's inclusion in the end of waste code it logically follows that it has been classified as a waste. Section 42 of the Environmental Protection Regulation states: Regulated waste is a waste that: (b) is of a type, or contains a constituent of a type, mentioned in schedule 9, part 1, column 1. The list of constituents in schedule 9 is comprehensive and many could be reasonably expected to be attached to ballast should leaks and spills occur or even through the course of general maintenance (e.g. pesticides, oils, PCBs, heavy metals). As a result, ballast that has these contaminants attached may be classified as a regulated waste (Chapter 22: Waste and Resource Management, Tables 22-6 and 22-8). Should ballast not be a waste product (regulated or otherwise) then its inclusion in the draft EoW code is logically incoherent. Furthermore, as ballast could be subject to a contaminant type listed in Part 1 of Schedule 9 of the regulation, the description within the revised draft EIS that ballast may constitute a regulated is wholly consistent with current legislative definitions.	Executive Summary Chapter 22: Waste and Resource Management Section 22.5 Table 22-6 Table 22-8
233	233.0004	Private	Approvals/ conditions/ recommendations	operational rail noise	Section 3.5.10 outlines details on ERAs expected to be necessary, yet there is no corresponding discussion about the relevance of each EPP to the Project. Of particular note, no recognition of any exclusions listed in Section 8 (4) (a) of the EPP (Noise). This EPP (Noise) cross-references matters mentioned in Section 1, Part 1, Schedule 1 of the EP Act (which includes ordinary use of rail transport infrastructure) as being excluded from the Acoustic Quality Objectives. Absence of such details about application of environmental values/ objectives is not consistent with Clause 9.10, ToR to determine the activity scope of ERAs and other EP Act requirements.	Describe all important inclusions and exclusions of applications in the other EP Act subordinate legislation, EPPs and outline their relevance to the Project. This is either from the perspective of ERA decision and conditioning process as well as more generally in application of its environmental quality objectives/ values.	The revised draft EIS has been updated. Environmental assessments in the revised draft EIS have been written to address the requirements of the Terms of Reference and additional information requests. The Chapter summaries and technical reports have outlined how they have addressed the requirements of the ToR and how they have addressed relevant updates based on the addition information request from Office of Coordinator-General (see Appendix A2: Terms of Reference Cross Reference Table).	Appendix A2: Terms of Reference Compliance Table
233	233.0005	Private	Approvals/ conditions/ recommendations		Clauses 9.5 to 9.110 of the ToR requires the EIS to describe all legislation, policies and plans relevant to the Project and identify approvals, licences, permits and other authorisations required for the construction and operations of the Project. This is expected to include rail safety accreditation. To commence the facilitation of the nominated safety-in-design processes, a high level of certainty about roles and accountabilities for delivered and existing assets within the rail corridor is required to ensure applicability of engineering standards and specifications to achieve the outcome of safe operations on all impacted rail (both new and existing) infrastructure and how safety interfaces between Rail Transport Operators will be managed within the context of rail safety legislative framework. In addition to this, the statement made in Section 3.5.24.1 for Project compliance is an oversimplification of the purpose of the RSNL and the obligations it places on an RTO. The safety-in-design process is only one element in supporting compliance with the RSNL and the key issue around multiple accreditation holders and impacts to other RTOs is not discussed/addressed. Section 5.1 (Overview of the Project) outlines that approximately 71.2 km of the current design is brownfield co-existing within the existing rail corridor for which Queensland Rail is the current accredited Rail Infrastructure Manager. No details as to timing or governance mechanisms are provided to provide certainty as to how or if these matters will be addressed prior to the commencement of detailed design/ safety-in-design processes. The absence of such does not provide adequate details for the purposes of Clause 9.7 of the ToR with respect to statutory approvals, permits, licences and authorities (including requirements of any owners consent) for use of land.	Provide additional specific details regarding detailed design and safety-in-design processes clarifying the timing and proposed agreed accountabilities of Rail Infrastructure Manager rail safety accreditation for the brownfield (existing) rail corridor sections. Provide detail of any mechanisms to work through such issues with QR to ensure satisfactory outcomes to mitigate impacts to QR assets and operations.	As part of ARTCs ongoing engagement with QR and TMR, roles and responsibilities regarding the Rail Infrastructure Manager (RIM) and obligations during Detailed Design, Construction Works and Operations will be clarified (Section 3.4.25, Chapter 3: Legislation and Project Approvals Process). TMR/ QR/ ARTC are working collaboratively to establish a governance structure to address these matters. ARTC is committed to safely constructing and operating the Project.	Chapter 3: Legislation and Project Approvals Section 3.4.25 Section 3.4.37 Section 3.4
233	233.0006	Private	Land Resources	Contaminated land	Clause 11.150 of ToR requires the draft EIS to provide the search results of the EMR and/or CLR for the proposed alignment and disturbance areas. Section 8.5.8.2 of the draft EIS outlines that only three properties within the proposed alignment and disturbance areas were listed on the EMR. None of these three properties were on the existing rail corridor parts of the Project. QR is aware, via search of the official Department of Environment and Science (DES) EMR/ CLR register, of 16 rail corridor properties (which are noted as Impacted Properties in Appendix F) being EMR listed for Hazardous Contaminant reasons. These rail corridor properties are Lot 82, SP104976; Lot 1, RP14231; Lot 121, 104977; Lot 14, SP112652; Lot 5, RP14231; Lot 2, RP37133; Lots 102 and 103, SP113905; Lot 22, SP124720; Lot 413, SP119196; Lot 110, MH807356; Lot 21, 120712; Lots 411 and 413, SP119197 as well as Lots 481 and 483, SP119198. These rail corridor properties are predominantly located in and around the populated centres of Brookstead, Pampas, Yelarbon, Gibinbell and Kurumbul. Parts of the rail corridor between these centres will be of equivalent pre-1960 age. Figure 8.1 shows limited soil sampling has been undertaken to date within the existing rail corridor to confirm or otherwise the presence of such contamination, regardless of listing or not given the historical use of the land. Future sampling plans should consider the above noted EMR listed properties and the general risk associated with rail corridor to ensure compliant management of material originating from the existing rail corridor.	Update information to also describe all existing rail corridor properties listed on the State official EMR register. Consider updating the list of future soil samples for contamination to include contamination testing within the existing rail corridor.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results will be presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. The investigation included the identification of potential sources of contamination within the impact assessment area through a desktop assessment (Chapter 9: Land Resources, Section 9.4.5) and also included findings from a limited contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Consistent with the requirements of ASC NEPM, the data quality objectives for contaminated land investigations need to be informed by detailed design information (e.g. proposed future re-use of materials). A contaminated land management strategy for any future assessments is provided in Chapter 9: Land Resources, Section 9.6.2 and Figure 9-24.	Chapter 9: Land Resources Section 9.4.5 Section 9.6.2 Figure 9-24 Table 9-15 Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix I: EMR Search Certificates and Soil Laboratory Certificates
233	233.0007	Private	Surface Water	Flood immunity	Clause 11.66 of the ToR details the requirements of flood studies, in particular (b) quantifying flood impacts on upstream and downstream existing infrastructure surrounding the proposed alignment from redirection or concentration of flows. It is not clear what were the data sources for QRs drainage structures (precisely which As Built drawings) adopted within the hydraulic model. There is also no comprehensive description about the impact from the proposed Project embankments and drainage structures on QRs existing infrastructure. This presents risk to QR based on current operations continuing and further information or commitments are required to ensure QR infrastructure and operations are not adversely impacted.	Describe and tabulate list of names and numbers for all As-Built drainage structure drawings sourced from QR. Provide further clarity around impact to QR existing infrastructure and operations, including any mechanisms to work through such issues with QR to ensure satisfactory outcomes for QR assets and operations.	Existing structures included within the hydraulic models have been included in the 'Hydraulic Model Development' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Information obtained and included within the hydraulic models was provided by Queensland Rail (QR) via a Request for Information. Culvert As-Built drawing information was not provided as part of the response from QR. Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for existing rail infrastructure. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with QR is required to discuss rail impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures. All changes on existing rail infrastructure exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood Impacts on existing rail infrastructure' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Section 14.8.1 of Chapter 14: Flooding and Geomorphology. ARTC will continue conversations with QR in relation to mitigation for flood impacts to rail infrastructure, for further consideration during detailed design. A detailed survey of existing cross drainage infrastructure will be conducted prior to detailed design, and the flood models updated accordingly.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 5 - 17
233	233.0008	Private	Surface Water	Increase in flows	Clause 11.66 of the ToR details the requirements of flood studies, B2G embankment and proposed culverts and bridge structures would alter hydraulic regimes. Limited clarity about whether any such changes in flow regimes from structures would cause worsening effect to existing QR structures. This presents risk to QR based on current operations continuing and further information or commitments are required to ensure QR infrastructure and operations are not adversely impacted.	Detail any significant diversion or interception of overland flow. Include maps of suitable scale showing the location of diversions and other water-related infrastructure relative to existing railway drainage structures. Note any mechanisms to work through such issues with QR to ensure satisfactory outcomes for QR assets and operations.	All changes on existing rail infrastructure exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood Impacts on existing rail infrastructure' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Section 14.8.1 of Chapter 14: Flooding and Geomorphology. Flood mapping has been provided in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the Digital Platform for each of the Flood Impact Objectives including (but not limited to): <ul style="list-style-type: none">Change in peak water levelsChange in peak velocityChange in time of inundationChange in hazardChange in velocity (with FIO cut-off's applied)Change in hazard (with FIO cut-off's applied)Change in time of inundation (with FIO cut-off's applied) ARTC will continue conversations with QR in relation to mitigation for flood impacts to rail infrastructure, for further consideration during detailed design.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5 - 17 Appendix T2: Flooding and Hydrology Technical Report - Volume 2
233	233.0009	Private	Surface Water	Increase in peak water levels	Clause 11.66 of the ToR details the requirements of flood studies. Table 12.75 (Change in Peak Water Levels % AEP) does not outline what the maximum increase is for existing rail lines. Correspondingly, Figure 12.20b appears to indicate maximum increase in the order of 50 to 100 mm which is compliant with the 100 mm Railways objective (see Table 12.8). However without a tabulated number in Table 12.75, it is difficult to verify colour scaling with certainty.	Quantify the maximum increase in 1% AEP peak water levels for existing Millmerran rail line (both the operational and non-operational sections).	All changes on existing rail infrastructure exceeding the FIO targets within the Condamine River floodplain have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within Section 7.5.3 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. This Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Section 14.8.1 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 7.5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
233	233.0010	Private	Surface Water	Increase in peak water levels	Clause 11.66 of the ToR details the requirements of flood studies. Table 12.118 indicates the maximum increase in peak water level is 150 mm at Chainage 45 km on the South West Rail Line (as also shown in Figure 12.27b2). This is not compliant with the 100 mm Railways objective (see Table 12.8). and poses risk to QR assets and operations. There is insufficient detail to describe how impacts will be managed.	Provide details on any additional proposed measures being considered to reduce the maximum peak water levels to within the nominated Railways flood objectives.	All changes on existing rail infrastructure exceeding the FIO targets in the Macintyre Brook floodplain have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within Section 14.6.3 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. This Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail, including justification and mitigation strategies. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Section 14.8.1 of Chapter 14: Flooding and Geomorphology.	Chapter 14: Flooding and Geomorphology Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 14.5.4
233	233.0011	Private	Noise and Vibration	operational rail noise	No discussion about the relevance of EPP (Noise) to the Project separately for construction and operation. Absence of such details about application of environmental values/ objectives is not consistent with Clause 9.10, ToR to determine the activity scope of ERAs and other EP Act requirements.	Provide additional text to describe how Section 8 (4) (a) of the EPP (Noise) decouples the application of acoustic quality objectives separately for construction and operations.	Appendix W: Noise and Vibration Assessment - Railway Operations, Section 3, states that the assessment of airborne noise, ground-borne noise and vibration from the Project has been undertaken consistent with ToR and general practice in Queensland with reference to the guidelines published under the Transport Infrastructure Act 1994. Whilst the Environment Protection Act 1994 and Environmental Protection (Noise) Policy 2019 (EPP (Noise)) applies for noise emissions in general, it states that noise from ordinary use/ operations of rail transport infrastructure is not within scope of the EPP (Noise) being an activity listed in Schedule 1 of EP Act (and cross-referenced in Clause 7 (6)(a) of EPP (Noise)). In 2019, the DTMR issued the Interim Guideline operational Rail Noise and Vibration – Government Supported Transport Infrastructure (Interim Guideline). The Interim Guideline is a published standard under the Transport Infrastructure Act 1994, and is the primary document that has been used in the assessment of operational noise and vibration impacts on the Project. Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 3 discusses the relevance of the EP Act and EPP (Noise) to the Project. The assessment of noise and vibration from the construction works stage and post-construction operational road traffic associated with the Project has been completed in accordance with the DTMR Codes of Practice Volume 1 - Road Traffic Noise (CoP Vol 1) and Volume 2 - construction Noise and Vibration (CoP Vol 2). CoP Vol 2 has been gazetted under Section 551 of the EP Act. The CoP Vol 2 has requirements for various stages of Projects and is a means of demonstrating compliance with the general environmental duty under the EP Act. DTMR's Road Traffic Noise Volume 1 is also relevant to the extent that new or modified roads are required in support of the Project. As discussed in Section 3.4.10 of Chapter 3: Legislation and Approvals, there are a number of approvals under the EP Act that are likely to be required following the Coordinator-General's evaluation report. This includes the approval for ERAs that may be required by the Project and will be sought separately to the approval being sought through the EIS process. Appropriate noise and vibration assessments, as required, will be undertaken at a later date to inform the necessary development approval application(s).	Chapter 3: Legislation and Approvals Section 3.4.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
233	233.0017	Private	Cultural Heritage	Indigenous cultural heritage	Table 17.21 (Initial Mitigation Measures Indigenous Heritage) confirms three CHMPs have been developed and agreed for the Project. Although it is good to acknowledge they are in accordance with ACH Act, there is a lack of clarity regarding the exclusion (or other) of the Existing Railway Corridor operations and maintenance.	Supplement the fifth row of Table 17.21 by describing ARTCs scope of Existing Railway Corridor activities covered by the three CHMPs excludes the maintenance of the existing QR railway.	The current CHMPs cover the construction of new rail infrastructure and associated structures for the Inland Rail Program, as well as operation and maintenance of the rail corridor that will be managed by ARTC. The CHMPs do not extend to activities performed by Queensland Rail. This is now stated in Section 19.1 of Chapter 19: Cultural Heritage.	Chapter 19: Cultural Heritage Section 19.1
233	233.0018	Private	Traffic and Transport	Level crossing	Clause 11.109 of the ToR requires an impact assessment of the Project on all individual road/ rail crossings. This is irrespective of whether the crossing is public or private occupational crossings. QR has identified the following inconsistencies with how the level crossing are geographically shown compared to how they are reported in Tables 18.23 and 18.24: Coding for Interface ID 310-5-P-1 (refer Figure 18.2a) indicates an existing road rail Intersection but is listed in Table 18-24 Proposed road rail Intersection. This is a stock route crossing i.e. an existing road rail intersect (QR ID 2038). It should be "E" for existing and listed in Table 18-23. Coding for Interface ID 310-8-E-0 (refer Figure 18.2a) indicates an existing road rail Intersection but is listed in Table 18-24 Proposed road rail Intersection. This is an existing road rail intersect (QR ID 2032). It should be listed in Table 18-23. Interface ID 310-16-E-1 Whetstone Access Road coding indicates existing road rail Intersection (as per legend on Figure 18.2b). Also listed as proposed public road rail Intersection (Table 18.23). According to the Figure 18.2b, the proposed alignment departs the existing rail alignment before the existing road rail interface location (QR ID2206). Therefore, the crossing of Whetstone Access Road by Inland Rail would be a new level crossing and coding should be P (proposed), not E (existing). Interface ID 310-42-E-0 should be coded "P", not "E" and listed in Table 18-24, as per 310-11-E-1 being replaced by 310-11-P-0 (refer Figure 18.2b) and listed in the respective Tables 18.23 (existing road-rail interfaces) and 18-24 (proposed road rail interfaces) Although Interface ID 310-24-P-3 and 310-25-P-1 are shown with symbol for no crossing provided, (refer Figure 18.2c) are not referred to in the Chapter 18 document tables 18.23 and 18.24. All other intersection locations where no crossing is to be provided are listed and indicate treatment. Interface ID 310-42-E-1 (refer Figure 18.2f) is on the existing rail alignment and listed in Table 18.23 (existing interfaces) as no crossing being provided. Road realignment will provide a new crossing nearby at 310-42-E-0 and is listed in Table 18-24 (proposed interfaces). Coding for 310-43-E-3 and 310-43-E-8 indicates existing road rail Intersection (refer Figure 8.2f) but both are listed in Table 18-24 Proposed road-rail interface. Either the crossings should be listed in Table 18-23 or if the proposed alignment veers off the existing alignment, the coding should be "P" instead of "E". Coding for Interface ID 310-46-E-1 (refer Figure 18.2g) indicates existing road-rail Intersection (it is QR crossing ID 2624) but it is listed in Table 18-24 Proposed road - rail Intersection.	Upgrade and address any nominated inconsistencies in level crossing types described in Figures 18.2a to 18.2g and Tables 18.23/18.24.	It is acknowledged that the submission identifies numerous inconsistencies in the road rail interface identification and reporting. These inconsistencies have been corrected in the revised draft EIS. Appendix AA: Traffic Impact Assessment, Section 3.6 outlines all proposed road rail interfaces to be used by the Project. This is further broken down into existing road rail interfaces and proposed new road rail interfaces in Section 3.6, respectively. Furthermore, Appendix L Existing Public Road Rail Interfaces of Appendix AA: Traffic Impact Assessment, provides the mapping of the existing road rail interface locations. A Table has been included below with a summary of the interfaces referenced in the submission as evidence that these inconsistencies have been addressed. However, not all of the listed road rail interfaces have changed for the reasons provided. Summary of updates below: 1. 310-5-P-1 is an existing road rail interface. Interface ID changed to 310-5-E-2 and listed in the Table of existing road rail interfaces (Table 3.11). 2. 310-9-E-0 is a relocated existing road rail interface and has been listed in the Table of existing road rail interfaces (Table 3.11). This is consistent with other relocated existing road rail interfaces. 3. 310-16-E-1 is a proposed road rail interface. Interface ID changed to 310-16-P-1a and listed in the Table of proposed road rail interfaces (Table 3.12). 4. 310-42-E-0 is a relocated existing road rail interface. 310-42-E-1 has been closed and relocated to this location (310-42-E-0). 310-42-E-0 is listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent coding with other relocated interfaces. With reference to the example provided by QR, 310-11-E-1 is the original Cunningham Highway LX in Yelarbon. 310-11-P-0 is the relocated Cunningham Highway road over rail grade separation to replace LX. This is inconsistent with the coding of other relocated interfaces. Interface ID changed to 310-11-E-0 and listed in the Table of proposed road rail interfaces (Table 3.12). 5. Interface ID 310-24-P-3 and 310-25-P-1 have been listed in Table 18.24 with 'no crossing provided' treatment. Note the stock route at this location is proposed to be realigned parallel to the southern rail corridor boundary. 6. This is consistent with the coding and listing of other existing road rail interfaces and the respective relocated existing road rail interface. 7. 310-43-E-3 is a relocated existing road rail interface and has been listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent with other relocated existing road rail interfaces. 310-43-E-8 is a proposed road rail interfaces. ID changed to 310-43-P-8a and listed in the Table of proposed road rail interfaces (Table 3.12). 8. 310-46-E-1 is a relocated existing road rail interface and is listed in the Table of proposed road rail interfaces (Table 3.12). This is consistent with other relocated existing road rail interfaces. It is however also listed in the Table of existing road rail interfaces as 310-46-E-1a, which considers the change to the existing intersection location to no longer be provided. Finally, an overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT Inland Rail Road Rail Interface Methodology.	Appendix AA: Traffic Impact Assessment Section 3.6 Table 3.11 Table 3.12 Appendix BT Appendix L
233	233.0019	Private	Traffic and Transport	operational traffic	Clause 11.109 of the ToR requires an impact assessment of the Project on all individual road/ rail crossings. This is irrespective of whether the crossing is public or private occupational crossings. Second last paragraph states that the analysis indicates that delays at level crossings will, in most instances, be five seconds or less. This is inconsistent with the total wait time listed Table 18.25 for each level crossing. The minimum listed time in Table 18.25 is 78 seconds.	Upgrade and address any nominated inconsistencies in how total wait time or delays has been quantified in Table 18.25 and corresponding text.	Section 5.9.3 of Appendix AA: Traffic Impact Assessment discusses analysis assumptions a lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4.1). This Section also details on how the level crossing time delay has been calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m. Section 5.9 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of: <ul style="list-style-type: none"> ▶ The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line ▶ The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate ▶ The time it takes the train to cross the level crossing ▶ Design vehicle consisting of a B-double for input parameters. Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows: <ul style="list-style-type: none"> ▶ Train clearance times were calculated based on an assumed maximum train speed of 115 km/h ▶ Calculation of the freight train acceleration rate ▶ Distance of the level crossing from passing loops ▶ Distance required to accelerate to maximum turnout speed (50 km/h) ▶ Distance travelled while at constant maximum turnout speed ▶ Distance required to accelerate to maximum speed after whole train has passed turnout ▶ Total distance required to reach maximum speed for train starting from turnout ▶ Total vehicles' wait time with train length of 1,800 m was estimated to be 104 seconds (including boom closure times). ▶ The wait times determined for each individual level crossing were calculated based on: ▶ Level crossing specific operating speeds which is impacted by topography and curvature of the alignment ▶ Time taken for the train to cross the level crossing ▶ Distance from train crossing loops ▶ Train length ▶ Summarise traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons, as per Section 2.4). ▶ A sensitivity test (to represent a conservative upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. Typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished. As part of the design process, the Project has considered aspects of longer train lengths to allow for future flexibility in use of the network. However, as stated in Section 5.2 of Chapter 5: Project Description, maximum train lengths assessed within the revised draft EIS is 1,800 m long.	Chapter 5: Project Description Section 5.2 Appendix AA: Traffic Impact Assessment Section 2.4.1 Section 5.9.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
233	233.0020	Private	Traffic and Transport	Mitigation measures	Clause 11.109 of the ToR requires an impact assessment of the Project on all individual road/ rail crossings. This is irrespective of whether the crossing is public or private occupational crossings. Specifically Clause 11.110 requires construction impacts of the Project on public railway level crossings through the ALCAM model. Clause 11.115 continues requiring measures to mitigate impacts on railway level crossings should be in accordance with Queensland Level Crossing Safety Strategy (2012 - 2021) with mitigation strategies to be prepared in close consultation with relevant transport authorities. Table 18.38 outlines the design of road rail intersection s will continue to be developed in consultation with DTMR and QR via pre-construction and construction phase surveys rather than describing the assessment findings within the EIS. Such consultative approach with QR for the pre-construction and construction surveys is appreciative. Using the construction Haul Route maps in Part 2 of Appendix X, QR has identified at least 7 passive control only (without boom gates) level crossings on the Millmerran Branch and 9 level crossings on the South West Line with only one having active control in the form of boom gates. In the absence of any detailed assessment on the adequacy of sight distances and formation/width provided in the EIS, it is however not clear what additional infrastructure mitigation measures is required at each of these level crossings and whether certainty about such mitigation works can be adequately scheduled/funded in time before construction commences. Table 18.34 outlines details about minimum treatment requirements for turning lanes into and out of road intersection. In addition to this, details about whether the crossing control types need to change has been identified in Tables 18.23 and 18.24. For level crossing assessment, crossing control type is only one of the mitigation variables. There is lack of details specific to each affected level crossing about whether the mitigation works will also involve changes to road/ rail crossing formation and width, sleeper upgrades, resealing road surfaces and lighting to accommodate expected weight/ size of heavy construction vehicles. This is especially with respect to the significant magnitude of increase in heavy vehicle traffic movements listed in Table 18.31. Particular examples of such turning lane upgrade details being provided but not the equivalent rail crossing mitigation measures are at Lindenmayer Road/ Gore Highway (QR level crossing ID 910) and Coolmunda Dam Access Road (QR level crossing ID 2191). The latter will be used for water catering and currently, only passive control with a history of incidents and marginally adequate existing sight distance. Such mitigation works may also impact existing rail services upon which limited assessment of impact types has been described.	Upgrade and address any nominated inconsistencies in level crossing types described in Figures 18.2a to 18.2g and Tables 18.23/ 18.24.	Table 5.66 of Appendix AA: Traffic Impact Assessment nominates the 17 existing levels located along proposed construction routes. Given the track possession during construction of the Project, it is assumed that two sections of the South Western System are proposed to be closed for the duration of construction, including: <ul style="list-style-type: none"> Millmerran Branch Line, between Wymeera and Millmerran South Western Line, between Whetstone and Goondiwindi. Therefore, of the 17 level crossings, only three are proposed to be operating during construction: Cunningham Highway at Whetstone (active level crossing with signals and boom gates), Coolmunda Dam Access Road (Passive Level Crossing) and Alderley Street (Active level crossing (signals only). Specific discussion on the individual operations of these three level crossings is provided within Appendix AA Section 5.8. <p>Section 5.8 of Appendix AA notes that prior to the use of these roads and associated level crossings by construction traffic, further consultation with the existing railway manager (QR) will be required in order to mitigate potential impacts. This consultation and engagement will be required during detailed design and prior to and during construction. This will include consultation on adequate traffic and safety management plans for the level crossings.</p> <p>Section 5.9 of Appendix AA: Traffic Impact Assessment nominates the proposed rail interface mitigation measures for detailed design, preconstruction and construction. For level crossings, including those impacted on the Millmerran Branch and South West Line, the impact mitigation will depend on the specific activity being undertaken, and the location where it is occurring.</p> <p>Road safety audits will be undertaken at level crossings pre and post construction in accordance with the Austroads guidelines. Level crossings will be reviewed to confirm the:</p> <ul style="list-style-type: none"> Level of protection continues to be appropriate Infrastructure is appropriate for the traffic conditions. <p>The proposed road safety audits will confirm adequacy of the available sight distances and formation widths are available, and the suitability of works which are recommended to accommodate construction activities. Scheduling and funding requirements will dictate whether these specific locations are utilised, or if construction movements are rationalised by the construction contractor.</p> <p>Section 5.8 of Appendix AA: Traffic Impact Assessment discusses in detail, works in the existing rail corridor with acknowledgement of the impact on QR and responsibilities for consultation and approval of all works – inclusive of the existing level crossings on the Millmerran Branch and South West Lines. Similarly, Section 5.9 reports on road-rail interfaces performance under operational traffic conditions. This includes queue analysis for short stacking condition assessment, and road diversion assessment.</p> <p>Further consultation with the existing railway manager (QR) will be required to mitigate potential impacts. This consultation and engagement will be required during detailed design and prior to and during construction. This will include consultation on adequate traffic and safety management plans for the level crossings. Furthermore, access to the existing rail corridor at these locations during construction will also need to be managed in consultation with QR and the relevant LGA.</p> <p>It is acknowledged that QR draws note to the Lindenmayer Road/ Gore Highway and Coolmunda Dam Access Road crossings. The former is not expected to be operational during construction of the Project as the Millmerran Branch Line will be closed for duration of Project construction at this Section of the alignment. The latter is individually acknowledged in Section 5.8 with recognition given to the water trucks being used to access the nearby dam. It is expected that only trains relating to the IR construction will use this crossing due to its proximity to Whetstone (end of the line). Depending on proposed traffic volumes in detailed design, an ALCAM may be recommended to be undertaken to determine whether the existing passive level crossing treatment is sufficient for the increased traffic volumes.</p> <p>Revised draft EIS Appendix AA: Traffic Impact Assessment, Section 5.2.2 also defines the safety mitigation measures that are relevant for all road rail interface locations throughout the Project lifetime, regardless of the interface assessment.</p>	Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.8 Section 5.9 Table 5.66
233	233.0021	Private	Waste and Resource Management	construction waste	Clauses 11.159 and 11.160 of the ToR require the EIS to describe and quantify all expected significant waste stream with respect to Waste Reduction and Recycling Act 2011, EP Regulation 2008, National Waste Policy 2009 and relevant Department of Environment and Science (DES) guideline/ instructional information. Although the DES document referred to in Appendix 1 has relevance, there are also other applicable DES information sheets. With respect to the EMR rail corridor properties, DES Information Sheet about Overview of Regulated Waste Categorisation, ESR/ 2019/ 4749 is also of relevance. Section 2.2 of this DES Information Sheet states this means that the notification, assessment and removal of sites from the EMR CLR will continue to be undertaken against contaminated land assessment criteria only and is not impacted by regulated waste categorisation framework. The waste categorisation provisions of the EP Regulations will not apply to contaminated soil from sites that are on the EMR or CLR. Section 20.3 does not mention this DES Information Sheet and this interpretation by the Administering Authority of when contaminated soil is or is not regulated waste. Tables 20.6 (construction Waste Quantities), 20.7 (Operation Phase Waste Types and Waste Streams) and 20.12 (Management of Waste Types generated by the Project) in Sections 20.56.3, 20.6.4 and 20.8.3 has also labelled ballast and its spoil as being regulated waste which is inconsistent with the DES Information Sheet quoted above.	Review DES Information Sheet called Overview of Regulated Waste Categorisation to confirm or not whether ballast and rail spoil from EMR listed properties is regulated waste and update Section 20.3, Table 20.6 and 20.7.	Rail spoil has not been classified as a regulated waste within the Executive Summary nor has it been classified as a regulated waste within Chapter 22: Waste and Resource Management (Sections 22.5 Tables 22-6 and 22-8) of the revised draft EIS. It should be noted that Table 22-8 references potentially contaminated solid waste (not spoil, not soil) as a regulated waste. This is to encompass all manner of potentially regulated waste that could arise including sleepers impacted by pesticides, hydrocarbons, heavy metals etc. <p>Ballast is currently the subject of a draft End of Waste (EoW) Code for Recycled Aggregates (ENEW07604819). As a result of ballast's inclusion in the end of waste code it logically follows that it has been classified as a waste. Section 42 of the Environmental Protection Regulation states: Regulated waste is a waste that:</p> <p>(b) is of a type, or contains a constituent of a type, mentioned in schedule 9, part 1, column 1.</p> <p>The list of constituents in schedule 9 is comprehensive and many could be reasonably expected to be attached to ballast should leaks and spills occur or even through the course of general maintenance (e.g. pesticides, oils, PCBs, heavy metals). As a result, ballast that has these contaminants attached may be classified as a regulated waste (Chapter 22: Waste and Resource Management, Table 22-6 and 22-8).</p> <p>Should ballast not be a waste product (regulated or otherwise) then its inclusion in the draft EoW code is logically incoherent. Furthermore, as ballast could be subject to a contaminant type listed in Part 1 of Schedule 9 of the regulation, the description within the revised draft EIS that ballast may constitute a regulated is wholly consistent with current legislative definitions.</p>	Executive Summary Chapter 22: Waste and Resource Management Section 22.5 Table 22-6 Table 22-8
233	233.0022	Private	Flooding - Gowrie Creek	Flood immunity	Clause 11.66 of the ToR details the requirements of flood studies, in particular (b) quantifying flood impacts on upstream and downstream existing infrastructure surrounding the proposed alignment from redirection or concentration of flows. Tables 7.31, 9.36 and 16.23 presents the modelled change in peak water level for the proposed hydraulic structures. There are no corresponding tables for what changes are expected for existing QR infrastructure hydraulic structures. Accordingly, there is uncertainty over what risk is posed to existing QR infrastructure.	Tabulate potential flood impacts (if any) to existing QRs drainage structures.	All changes on existing rail infrastructure exceeding the FIO targets have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided within the 'Flood impacts on existing rail infrastructure' Section of each catchment Chapter in Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Each Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Chapter 14: Flooding and Geomorphology, Section 14.8.1. <p>ARTC will continue conversations with QR in relation to mitigation for flood impacts to rail infrastructure, for further consideration during detailed design.</p>	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5 - 17
233	233.0023	Private	Flooding - McIntyre Brook	Flood immunity	Clause 11.66 of the ToR details the requirements of flood studies, in particular (b) quantifying flood impacts on upstream and downstream existing infrastructure surrounding the proposed alignment from redirection or concentration of flows. At one location (Chainage 45 km), the predicted change in 1% AEP afflux is up to 150 mm immediately to the east of where the two alignment diverge from each other for a distance of 200 metres along the QR existing line. A change of more than 100 mm does not achieve the Railway flooding objectives nominated in Table 12.8 of Chapter 12. There is no discussion about what additional mitigation is being investigated to address this. This presents risk to QR based on current operations continuing and further information or commitments are required to ensure QR infrastructure and operations are not adversely impacted.	Provide details on additional proposed measures being considered to reduce the maximum peak water levels to within the nominated Railways flood objectives.	All changes on existing rail infrastructure exceeding the FIO targets in the Macintyre Brook floodplain have been identified within Appendix T1: Hydrology and Flooding Technical Report - Volume 1. A summary of this assessment is provided in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 14.6.3. This Section presents a Figure that visually shows the impacted sections of rail, including a corresponding summary Table itemising all exceedances associated with the impacted sections of rail, including justification and mitigation strategies. A condensed summary of flood impact objective exceedances on existing rail infrastructure is also provided in Chapter 14: Flooding and Geomorphology, Section 14.8.1.	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 14.5.4
234	234.0001	Private	Land Use and Tenure	Property Devaluation	The submitter is a chartered accountant in Millmerran Inglewood and Texas. He is raising this issue on behalf of Tim Durre's, his client. He is concerned about Mr Durre's irrigation property at Gowrie Toowoomba and how he will be majorly affected financially by the Inland Rail Project as it bisects and devalue his property.	Construct rail line through the forestry from Goondiwindi to Gladstone. He acknowledges that it will go through Wagner's airport, but they were the ones that have indirectly made the line past their airfield go through Mr Durre's irrigation property.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC is committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided (Chapter 8: Land Use and Tenure, Section 8.6.1). <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46 and Section 8.5.4). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable.</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p> <p>Refer to Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2of the revised draft EIS for further detail.</p>	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.5.4 Section 8.6.2 Table 8-46

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
234	234.0002	Private	Stakeholder engagement		The submitter has participated in many consultative meetings arranged by the proponent. However despite many meetings he is of the impression that the proponent was not acknowledging any issues raised by them, or paying attention to these. He finds the consultation process 'pathetic' and 'lip service' with no acknowledgement of local knowledge or time spent in attending meetings.	Nil.	ARTC recognises the contribution that the submitter has made to the development of the Project, since its inception. The alignment selection process was conducted prior to 2017, with early stakeholder consultation and business case stages for this process outlined in the Appendix E Consultation Report, Section 3. Since this date, ARTC has conducted community consultation and reference design works within the 2 kilometre corridor provided by the Australian Government. The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2. Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report of this EIS covers community consultation conducted from November 2018 during the development of this EIS and the reference design. Since this submission the Federal government tabled its response to the Senate Enquiry in December 2021.	Appendix E: Consultation Report Section 2 Section 3
234	234.0003	Private	Flooding		The submitter is concerned on construction railway line over the flood plain from Millmerran onwards.	Rail line should be re-directed from Millmerran to Gladstone through forestry areas.	The revised draft EIS is focused on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Section 2.8 of Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: infrastructure.gov.au/infrastructure-transport-vehicles/rail/inland-rail	Chapter 2: Project Rationale Section 2.8 Section 2.9.3
234	234.0004	Private	Land Resources	Severance of agricultural land	The submitter is concerned that if the rail line went past Toowoomba and below the range, many more agricultural arable lands would be affected and end up in Acacia Ridge in Brisbane.	Re-direct route from Millmerran to Gladstone and eventually onto Darwin which was the original concept of a Melbourne to Darwin connection.	As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9 of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rail's program of works. The weighted criteria in the MCA tool includes environmental impacts, community impacts, approvals, stakeholder engagement, technical viability, safety, constructability and operations. The option selection and design process considered the issues raised during consultation with relevant stakeholders and the findings of environmental and engineering investigations. The Project has been aligned to be co-located with existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However, for several reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land. Chapter 8: Land Use and Tenure, Section 8.5.1, has been updated for the revised draft EIS, detailing land to be sterilised due to the revised alignment. ARTC will continue to engage with affected landholders to minimise impacts on existing agricultural practices. Where the loss of agricultural land could not be avoided, refinement of the horizontal alignment was considered (among other environmental, social, cultural, economic and technical constraints) to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises (Section 8.6 of Chapter 8: Land Use and Tenure).	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6 Table 8-46
235	235.0001	Private - Brookstead	Land Use and Tenure		The submitter states that the Darling Downs contains some of the most highly fertile and productive agricultural land in Australia and to resume it for a rail line seems contradictory when as agricultural producers are also being asked by the Australian Government to increase production and feed an increasing population.	The submitter states that there needs to be more research and community consultation into the alignment of the route to avoid resuming highly productive agricultural land.	ARTC has considered a balanced approach to determining the Inland Rail alignment, considering operational, environmental, economic and social factors. ARTC is committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided (Chapter 8: Land Use and Tenure, Section 8.6.1). Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA (Chapter 8: Land Use and Tenure, Table 8-46). Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible. A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption (Chapter 8: Land Use and Tenure, Section 8.6.2). ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of: <ul style="list-style-type: none">Landowners' needs regarding access to the properties and the closure of private roadsProperty infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring AuthorityThe potential for changes to groundwater access. This will inform development of the detailed design and Construction Environmental Management Plan. Refer to Chapter 8: Land Use and Tenure, Sections 8.5.1 and 8.6.2 of the revised draft EIS for further detail.	Chapter 8: Land Use and Tenure Section 8.6.1 Section 8.6.2 Table 8-46
235	235.0005	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project.	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
235	235.0006	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The real social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during the detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
235	235.0007	Private - Brookstead	Social Impact Assessment		The submitter states that as having been a member of the Southern Darling Downs CCC since its inception, the experience has been far from being a 'consultant to my community'. The submitter states that throughout the past couple of year's they have found themselves finding out information about the proposed rail line through others in the community. An example of this was a 2-hour community session held in the town of Brookstead to discuss the closure of roads that would effect accessibility to the township as well as the surrounding community; in this instance, the submitter found out about the meeting 45 minutes before it finished through a community member. The submitter states that ARTC should have provided this information to the CCC to inform the community members.	Nil.	ARTC acknowledges the contribution the submitter has made to the SDDCCC and the Project since its inception. ARTC endeavours to manage communication channels such as the CCCs and public information sessions to ensure all information is distributed in a timely and professional manner. ARTC apologises that, in the situation outlined by the submitter, the information was not distributed at an acceptable level as the township of Brookstead is represented under the Inner Darling Downs CCC. Since this submission, ARTC continues to engage with the submitter and work through their concerns and feedback.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
235	235.0008	Private - Brookstead	Stakeholder Engagement		<p>ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community.</p> <p>ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders.</p> <p>The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board.</p> <p>ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records.</p> <p>ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.</p> <p>The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness.</p>	<p>Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication.</p> <p>Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses.</p>	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>
236	236.0001	Private	Land Use and Tenure		<p>No mention is made of the loss of future value of land. Land held as investment property will be completely or severely diminished value in land as a result of the rail. Land with small businesses will have to be moved or closed. People will have to find a new farming enterprise and home, as well as a new place to move their business.</p>	<ol style="list-style-type: none"> Reframe the terms of compensation to include loss of future value and retirement benefits. Include loss of business and compensation for loss and disturbances of business. Reject draft EIS 	<p>Where the Project requires the permanent acquisition of properties, this will be undertaken in accordance with the requirements of the Acquisition of Land Act 1967 (Qld).</p> <p>Chapter 8: Land Use and Tenure, Section 8.6.2, states that assessment of compensation is undertaken in accordance with Section 20 of the Acquisition of Land Act 1967 (Qld). Compensation is based upon the value of land taken at the date of the resumption, plus damage caused by severance and/or injurious affection to other land, and costs attributable to disturbance. Compensation is assessed on an individual basis, based on the highest and best use market value of the land taken at the date of resumption. In assessing the compensation paid, regard is given to the value of the land taken, severance, injurious affection and disturbance.</p> <p>Costs attributable to Compensation for disturbance caused by the resumption may include:</p> <ul style="list-style-type: none"> Reasonable legal costs, valuation or other professional fees for preparing and filing a claim for compensation Costs related to the purchase of replacement comparable land Storage and removal costs Other reasonable financial costs incurred that are a direct consequence of the resumption of the land. 	<p>Chapter 8: Land Use and Tenure Section 8.6.2</p>
236	236.0002	Private	Landscape and Visual Amenity		<p>Landscape will be severely impacted. The draft EIS lacks information about the possible visual amenity impact of the area in which the submitter is located.</p>	<ol style="list-style-type: none"> Redesign the line or move it to another area. Reject the draft EIS as it has failed to realise the full extent of the wildlife, flora and fauna (part of visual amenity) impacts. 	<p>Section 11.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. Development of the revised reference design for the Project has progressed in parallel with the impact assessment process and the revised reference design has been slightly amended for the revised draft EIS, to reflect outcomes of ongoing engagement with the community and key stakeholders. As a consequence, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the reference design and revised EIS design as appropriate and where possible. The revised reference design has been developed in consideration of improving environmental outcomes, contributing to community wellbeing, contributing to social, economic and environmental sustainability, and mitigating impacts to the natural landscape and visual amenity. Among the mitigation measures and controls that have been factored into the design, or otherwise implemented during the revised reference design stage for the Project are as follows:</p> <ul style="list-style-type: none"> The Project has, where possible, avoided impacts on nationally or regionally protected landscape areas such as the Wondul Range National Park and has minimised impacts on State Forests such as Whetstone State Forest by following the edge of the protected area to the greatest extent possible The Project has been intentionally aligned along the eastern boundary of the Rainbow Reserve so as to minimise the extent of encroachment into this reserve, whilst also avoiding severance impacts to agricultural lots to the east of Rainbow Reserve The Project has avoided, where possible, direct impacts on areas noted as being of regional landscape significance defined using the regional scenic amenity methodology (ShapingSEQ) The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes The alignment has been positioned to reduce the number of crossings and extent of impact on watercourses The Project footprint defined in the revised reference design has aimed to minimise vegetation clearing extents to that required to safely and efficiently construct, operate and maintain the works The alignment has avoided significant settlements to the greatest extent possible to assist in minimising visual impacts (e.g. Inglewood, Millmerran, Pittsworth) except where the alignment is within or adjacent to existing rail corridor (i.e. through Yelarbon, Pampas and Brookstead) The revised draft EIS alignment has changed to minimise impacts in the vicinity of Millmerran. <p>Impacts of lighting on wildlife are not part of the Landscape and Visual Impact Assessment and are addressed separately within the Border to Gowrie Flora and Fauna assessment as detailed in Chapter 11: Flora and Fauna, which summarises there will be limited lighting associated with the construction (i.e. flashing beacons and temporary spot lights in support of short-duration night works, if required) and operation (i.e. head lamp on rollingstock and safety lighting at road-rail interfaces) of the Project. All lighting associated with the construction works stage will be short term in nature and for the operations stage, will exist as pulses of short duration (for rolling stock). Measuring light to assess its effect on fauna is challenging and an emerging area of research and development. There is currently no globally recognised standard method for monitoring light for wildlife. Artificial lighting may have a range of impacts across different groups of taxa and between species within these groups, which is ultimately dependent upon a species visual system.</p> <p>The LVIA has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and potential impacts associated with the Project, including Project lighting, are identified in Section 6. A qualitative lighting assessment has been undertaken as part of the LVIA as outlined in Section 4.10 of Appendix K: Landscape and Visual Impact Assessment. In addition, an Otrusive Lighting Assessment (OLA), which is a quantitative assessment, has been prepared by a lighting engineer to support the LVIA (refer Section 9.2 and Appendix 3: Otrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment).</p> <p>With regards to lighting impacts on visual receptors, the qualitative desktop assessment of potential Project lighting impacts concluded that the proposed Project and associated infrastructure are unlikely to create any measurable impacts associated with obtrusive lighting into the external environment as a result of the likely construction activities or permanent Project lighting on representative viewpoint locations.</p> <p>The revised draft EIS contains several recommendations regarding mitigating the visual impact of lighting for consideration during detailed design. Please refer to Section 11.2 and Appendix 3: Otrusive Lighting Assessment of Appendix K: Landscape and Visual Impact Assessment for further details.</p> <p>As discussed in the mitigations for Landscape and Visual Amenity in Chapter 24: Draft Outline Environmental Management Plan, while ensuring the construction and operational safety is not compromised, Australian Rail Track Corporation (ARTC) would seek to minimise light emissions from the Project (during construction and operation) by select placement, configuration and direction of lighting to reduce potential impacts to the surrounding environment, where practicable, in accordance with Australian Standards.</p> <p>ARTC will continue to work with impacted landowners and businesses regarding design changes from the revised draft EIS and will continue to consult with key stakeholders during the detailed design stage. This will include ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Chapter 24: Draft outline Environmental Management Plan Appendix AC: Proponent commitments Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.10 Section 6 Section 9.2 Section 11 Section 11.2 Appendix 3: Otrusive Lighting Assessment</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
236	236.0003	Private	Flora and Fauna		The report prepared by ARTC does not show many wildlife species and natural fauna in the submitter's area. The patch scrub on Owens Scrub Road has many animals, which are also located on his dam. The proposed line in this area will negatively impact flora and fauna in the area. The train line will disrupt trees in the corridor. The Belson's panic grass found in the area is a vulnerable grass specie, which will be impacted by the rail.	1. Redesign line 2. Move line area to another area. 3. Reject the draft EIS as it has failed to realise the full extent of impacts on all species in the submitter's area.	Detailed desktop assessments and field surveys were conducted across the proposed alignment and can be found in revised draft EIS Appendix L: Terrestrial and Aquatic Ecology. A detailed assessment on potential impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Some examples of identified impacts include habitat loss and degradation, displacement of threatened species, barrier/edge effects, lighting, dust, erosion, contamination and more. Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project alignment. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction, construction and operational stages. Belson's panic grass has been identified in Appendix O: Matters of National Environmental Significance Report as a vulnerable flora species. This grass species as requiring a recovery plan, nor has a threat abatement plan been identified as being relevant for this species. The approved conservation advice for the species (DEWHA, 2008) identifies the following threats: <ul style="list-style-type: none">Habitat loss due to agricultural development and mining Projectsovergrazing by livestockweed invasion. The approved conservation advice for the species does not identify important populations or habitat critical for the species (DEWHA, 2008). As outlined in Appendix O: Matters of National Environmental Significance Report, it is considered likely that there is an important population of Belson's panic within the Project footprint, and the Project is likely to lead to a long-term decrease in the size of an important population (as defined under the Significant Impact Guidelines). ARTC will provide biodiversity offsets in accordance with the relevant state or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Environmental Offset Delivery Strategy.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Appendix O: Matters of National Environmental Significance Report Appendix Q: Environmental Offset Delivery Strategy
236	236.0004	Private	Flooding - Condamine River		The submitter is severely concerned about the construction of the line over the Condamine floodplain.	Consider finding from outside experts on this area.	The revised draft EIS is focused on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Section 2.8 of Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: infrastructure.gov.au/infrastructure-transport-vehicles/rail/inland-rail .	Chapter 2: Project Rationale Section 2.8 Section 2.9.3
236	236.0004	Private	Air Quality	Cumulative impacts	The submitter's home is identified as a sensitive receptor. He is concerned about the general train pollution and idling train in the crossing loop and while at maintenance. He is concerned about the cumulative impact of the mine dust that is already located nearby. His property is already shown as in an area with higher-than-average levels of nitrogen.	Move the line or reject draft EIS.	Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none">environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions)community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts)approvals and stakeholder engagement: 12.5 per centtechnical viability: 17 per centsafety: 16.5 per centconstructability: 12.5 per centoperations: 16.5 per cent. The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none">ability to enhance the Inland Rail service offeringconstruction and operating costsmulti-criteria analysis (MCA). As noted in Chapter 2: Project Rationale, Section 2.9.3, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.15 Figure 2.14 Appendix E: Consultation Report Section 5.1
236	236.0005	Private	Groundwater	Water quality	The submitter is concerned about the uptake of bores in the area and its long-term effects on the health of the local water resources.	Consider using outside experts on this area.	No long-term or regional groundwater drawdown/ wider impact on the aquifer is anticipated as a result of the Project. The groundwater predictive modelling undertaken as part of the EIS indicates that the horizontal extent of drawdown is to only extend a maximum of 10 m to 43 m horizontally from the rail centreline (from the deepest cuts). This drawdown will be localised around the vicinity of the deep cuts that intersect groundwater only and no regional groundwater drawdown/ wider impact on the aquifer is anticipated (Chapter 15: Groundwater, Section 15.5.4). Currently no bores are anticipated to be impacted by groundwater drawdown from the Project. Revised draft EIS Chapter 15: Groundwater, Section 15.5.4 and 15.7.4 and Table 15-20 and Appendix U: Groundwater Technical Report, Section 8.2 and 8.3.4 have been updated accordingly with groundwater users, the 'make-good' strategy and proposed measures. Baseline groundwater monitoring has been conducted and is ongoing at Project bores along the Project alignment. The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting aspects of the Project (see the groundwater management and monitoring program (GMMP) in the revised draft EIS, Chapter 15: Groundwater, Section 15.7.3 for a detailed approach to monitoring for impacts during construction). The use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, trading or purchasing of existing allocated entitlements will be pursued in the first instance through a qualified water broker. The extracted volumes shall therefore be within the existing licencing limits that are calculated to protect groundwater resources. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements Report.	Chapter 15: Groundwater Section 15.5.4 Section 15.7.4 Table 15-20 Appendix B5: Construction Water Requirements Report Appendix U: Groundwater Technical Report Section 8.2 Section 8.3.4
236	236.0007	Private	Social Impact Assessment		The submitter has not been informed by the proponent about the latter's mental health partnership initiative for those impacted by the Inland Rail. The submitter was not informed about whom to contact to get this help.	Nil.	ARTC's mental health partnership aims to enable people affected by the proposed Project to access local and independent mental health support services. The partnership with DD&WM PHN has been selected as it is utilising and strengthening existing mental health services rather than replicating and competing with existing providers. The services supported by ARTC are promoted through the PHN's business-as-usual activities, including active communication regarding services available to local GPs.	N/A
236	236.0008	Private	Stakeholder Engagement		The submitter is concerned that the consultation process with the landowners have been secretive and mishandled. The first meeting invitation was received by them a day after the meeting, resulting in them missing the meeting. They were also not told about the crossing loop, maintenance siding and laydown area. The submitter feels that the consultation with community has not been open and honest. The submitter had to obtain information after extensive questioning, enquiry and investigation by themselves, rather than it coming from ARTC people.	Reject draft EIS as a lot of the content has not been openly discussed with the general public and affected parties.	The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2. Design is an iterative process and design details were shared with community members as they became available. ARTC notes that the Project reference design prepared contained an appropriate level of detail for that stage of design. The design will be progressed in the detailed design stage. ARTC notes that this submission refers to a community engagement event held in June 2016. The community engagement associated with the development of the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016) and subsequent corridor selection process was managed by the Federal Department of Infrastructure and Regional Development. The submitter was present at a community engagement event held in October 2020, where one-on-one discussions with Project designers about the road and rail design was held. Since this submission, the Coordinator-General has requested that ARTC prepare a revised draft EIS, which will be subsequently placed on public exhibition for stakeholder feedback. Broad community engagement has been undertaken to inform the revised draft EIS, as detailed in Appendix E: Consultation Report.	Appendix E: Consultation Report Section 2
236	236.0009	Private	Traffic and Transport		1. Concerned about the existence of the railways crossing on the busy Owens Scrub Road which has major traffic to the Millmerran Power Station and mine. 2. Concerned about possible queue length. The estimates for queue length has been done for 1800 m train and not 3600 m. Concerned that the existing traffic analysis does not mention anywhere the effects of a crossing loop and delay of timing as trains slow down at crossing loops and pass one another. 3. Traffic on Owens Scrub Road and Foxwood road will be increased by 47%. Hence has the combined effect with other road traffic been considered? 4. School bus route: Has the full impact of wait times at level crossings been considered for the school buses?	1. Avoid Owens Scrub 2. Line moved somewhere else. 3. The crossing loops and maintenance siding should all be considered for another less busy road. 4. The future proofed design of the crossing loop is flawed and must be moved elsewhere.	As part of the revised reference design, Owen Scrub Road is now proposed as a road over rail grade separation (310-38-P-3b) with surround road upgrades. This replaces the previously proposed active level crossing within the draft EIS. The new crossing loop location is approximately 2.5 km east of Owen Scrub Road, which is now a grade separated road-rail interface. The new crossing loop location is approximately 2.5 km east of Owen Scrub Rd and meets all performance specifications as outlined in Table 5-4 in Chapter 5: Project Description of the revised draft EIS. Therefore no delay for road traffic at this location is anticipated. The revised draft EIS Chapter 5: Project Description, Section 5.2 describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Section 5.2 Table 5-4
237	237.0001	Private	Traffic and Transport		GrainCorp requests the EIS detail the approval process required to permit the commencement of 3,600 m trains on Inland Rail and specify thresholds of incremental change not needing consent/approval.	Nil.	Chapter 5: Project Description, Section 5.2 describes the operation of the double stacked rollingstock up to 1,800 m long. The planning approval for Inland Rail will only allow for development consistent with that Project description and does not include longer trains. ARTC note that as part of the rail network, trains of various lengths and configurations up to 1,800 m will use different parts of the system. It is important to note that 3,600 m trains is not part of the proposal for which approval is being sought.	Chapter 5: Project Description Section 5.2
237	237.0002	Private	Traffic and Transport		GrainCorp is concerned an operational connectivity issue exists for the east-west movement of regional freight traffic and the need to facilitate access to existing and proposed intermodals, industrial areas and GrainCorp sites.	Nil.	The Australian Rail Track Corporation (ARTC) employs a specialised resource to expand its freight-on-rail business, particularly in regional locations. This involves building and maintaining relationships with potential customers, rail freight and terminal owners, as well as other industry stakeholders. The stakeholders located along the existing rail networks are actively engaged as potential users of the Inland Rail, which seamlessly integrates with the regional network. Please refer Chapter 5: Project Description for further details. Chapter 5: Project Description describes the interoperability that has been integrated within the design, which includes turnouts to existing GrainCorp sidings and Queensland Rail network at Kildonan, Whetstone, Millmerran and Yarranlea.	Chapter 5: Project Description
237	237.0003	Private	Traffic and Transport		GrainCorp is of the opinion that insufficient emphasis has been given to the cumulative effects of increased freight traffic and the South East Queensland future passenger demand.	GrainCorp requests the Project proponent provide operational analysis on these forecast interactions through detailed Network modelling utilising existing and future traffic volumes.	It is noted that Projects with spatial and/or temporal overlap can result in cumulative impacts; therefore, the revised draft EIS Chapter 23: Cumulative Impacts Section 23.3.9 addresses cumulative impacts, including the crossover between multiple Inland Rail packages. To enable stakeholders to make informed decisions, consideration has been given to the potential impacts of other major Projects in the area to ensure that the combined impacts of the Project are accounted for. A quantitative cumulative impact assessment has been undertaken considering the complete Inland Rail construction from North Star to Border to Kagaru to Acacia Ridge/ Bromelton. The study area considers the overlap of other Inland Rail packages with the proposed Project construction routes across the complete construction timeframe over the six packages. Several key assessments, which were influenced by traffic volumes, have been reassessed as part of the cumulative impact assessment. These include the assessment of road safety, intersections, road link capacity, and pavement. In cases where there was a change in cumulative year peak-hour volumes, analysis was also undertaken for safety, Intersection, and road link capacity assessments. Any road links and Intersection s with no volume change have been evaluated in the 'Project only' assessment covered in Section 20.5 of Chapter 20: Traffic, Transport and Access. The revised draft EIS Chapter 20: Traffic, Transport and Access has been updated in accordance with the GTIA, and a detailed cumulative impact assessment can be found in Chapter 23: Cumulative Impacts. ARTC remains committed to collaborating with TMR and other road controlling authorities throughout subsequent stages of the Project to mitigate any cumulative impacts that have been identified.	Chapter 23: Cumulative Impacts Section 23.3.9 Chapter 20: Traffic, Transport and Access Section 20.5
237	237.0004	Private	Traffic and Transport	operational traffic	GrainCorp believes the Project is missing an opportunity to create efficient rail logistic pathways to all existing and potential market destinations. operational degradation of regional networks and reduced opportunity for regional traffic is an economic, safety and freight efficiency issue which will not be fully addressed by the proposed connections.	Nil.	The Australian Rail Track Corporation (ARTC) employs a specialised resource to expand its freight-on-rail business, particularly in regional locations. This involves building and maintaining relationships with potential customers, rail freight and terminal owners, as well as other industry stakeholders. The stakeholders located along the existing rail networks are actively engaged as potential users of the Inland Rail, which seamlessly integrates with the regional network. Please refer Chapter 5: Project Description for further details. Chapter 5: Project Description describes the interoperability that has been integrated within the design, which includes turnouts to existing GrainCorp sidings and Queensland Rail network at Kildonan, Whetstone, Millmerran and Yarranlea.	Chapter 5: Project Description
237	237.0005	Private	General Project opinion - positive		GrainCorp is pleased the importance of the connections to existing lines has been recognised and will continue to work with ARTC and the relevant government authorities to ensure these connections are maximised through additional Projects such as the Federal Department of Infrastructure, Transport, Cities and Regional Development Inland Rail Interface Improvement Program.	Nil.	ARTC notes this submission and will continue to consult with GrainCorp as a key stakeholder of the Project.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
237	237.0006	Private	Traffic and Transport		GrainCorp has concerns with regard to the reliance on the successful contractor for detailed design analysis to negotiate traffic and local amenity impacts. The EIS fails to provide a complete assessment of the impact to the regions roads and any subsequent negative outcome for the transport of grain to GrainCorp facilities.	Nil.	<p>Whilst a significant amount of work has been completed to assess the potential road impacts as outline in the Traffic Impact Assessment in Appendix AA: Traffic Impact Assessment of the revised draft EIS, the Contractor is not on board the Project until detailed design and as such the construction routes are not finalised by the Contractor. As a result, a complete Road Use Management Plan cannot be delivered until that time. This is normal process for construction Projects, and is in line with Workplace Health and Safety legislation requirements. This is because many assumptions during the previous stages that will impact on road use management strategies, are not confirmed until detailed design progresses, or construction scheduling allows full visibility of the impact of construction vehicles.</p> <p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Any roads or existing structures located along construction routes that may warrant upgrades to cater for the Project's construction vehicles will be required to be assessed in consultation with the asset owner, the road controlling authority, local councils, ARTC and the construction contractor to determine if the upgrade is warranted as a part of the Project. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment.</p> <p>Requirements for roads upgrades to be finalised during detailed design stage as well as updating during the construction works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification *MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p> <p>ARTC commit to continuing engagement GrainCorp, local councils and TMR to refine construction methodology and verify sources of construction material.</p>	Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.7
237	237.0007	Private	Traffic and Transport	construction traffic	GrainCorp disputes the viability of the ballast and capping sourcing strategy and asserts the EIS has failed to adequately demonstrate the traffic and amenity impact of verified sources of construction material.	Nil.	<p>The revised draft EIS Chapter 20: Traffic, Transport, and Access Section 20.3 outlines the assumptions regarding the construction methodology. The draft TIA aims to provide indicative impacts based on the level of assessment appropriate to the assumptions made and the degree of certainty at the time of design. This includes considerations such as construction methodology, material volumes, sources, and transport routes. ARTC will continue to engage with construction contractor, GrainCorp, local councils and TMR to refine construction methodology and verify sources of construction material.</p> <p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Any roads or existing structures located along construction routes that may warrant upgrades to cater for the Project's construction vehicles will be required to be assessed in consultation with the asset owner, the road controlling authority, local councils, ARTC and the construction contractor to determine if the upgrade is warranted as a part of the Project. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment.</p> <p>Requirements for roads upgrades to be finalised during detailed design stage as well as updating during the construction works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification *MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p>	Chapter 20: Traffic, Transport, and Access Section 20.3 Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.7
237	237.0008	Private	Traffic and Transport	construction traffic	GrainCorp expects there should be no lasting impacts to the regional road network as a result of the Project. GrainCorp requests that any mitigation and control plan be prepared in consultation with both TMR, local council, GrainCorp and rail operators to minimise transfer of rail freight impacts to the road network and construction traffic impacts on the road network.	Nil.	<p>While a significant amount of work has been completed to assess the potential road impacts as outline in the Traffic Impact Assessment in Appendix AA: Traffic Impact Assessment of the revised draft EIS, the Contractor is not on board the Project until detailed design and as such the construction routes are not finalised by the Contractor. As a result, a complete Road Use Management Plan cannot be delivered until that time. This is normal process for construction Projects, and is in line with Workplace Health and Safety legislation requirements. This is because many assumptions during the previous stages that will impact on road use management strategies, are not confirmed until detailed design progresses, or construction scheduling allows full visibility of the impact of construction vehicles.</p> <p>Once the Contractor is appointed and the final construction routes are determined, all construction routes will be further assessed and ground-truthed prior to use by construction vehicles. This includes obtaining all necessary permits and ensuring roads meet appropriate performance standards and any road upgrades that may be required are considered.</p> <p>Any roads or existing structures located along construction routes that may warrant upgrades to cater for the Project's construction vehicles will be required to be assessed in consultation with the asset owner, the road controlling authority, local councils, ARTC and the construction contractor to determine if the upgrade is warranted as a part of the Project. For further detail see Section 5.7 of Appendix AA: Traffic Impact Assessment.</p> <p>Requirements for roads upgrades to be finalised during detailed design stage as well as updating during the construction works stage and as per contract required risk assessments when preparing appropriate TMPs and TGS in accordance with the Manual of Uniform Traffic Control Devices: Part 3 - Works on Roads and DTMR's specification *MRTS02 - Provision for traffic requirements. Further detail on proposed road work mitigations is discussed in Section 5.2.2 of Appendix AA: Traffic Impact Assessment.</p> <p>ARTC commit to continuing engagement GrainCorp, local councils and TMR to refine construction methodology and verify sources of construction material.</p>	Appendix AA: Traffic Impact Assessment Section 5.2.2 Section 5.7
237	237.0009	Private	Traffic and Transport	Level crossing	GrainCorp notes the omission of the passive level crossing located at Yelarbon between Railway Parade and East Sawmill Road. GrainCorp strenuously objects to the closure of this level crossing without mitigation allowing alternatives for truck movements as it would have significant impact on the operation of the site.	GrainCorp requests that the proponent prepares and make public a Level Crossing Report (LCR) for the Project infrastructure, which must be developed in consultation with the relevant road authority. GrainCorp requests the LCR must also include the cumulative impacts of multiple level crossings on transit time throughout the region which may impact the route selection for road traffic, particularly Higher Mass Limits (HML) vehicles during peak harvest, and intercity road freight.	<p>The Project recognises GrainCorp as a key stakeholder and acknowledges the concerns regarding the closure of East Sawmill Rd level crossing. The Project will continue to work collaboratively with GrainCorp to progress potential solutions during detailed design.</p> <p>Stakeholder Engagement with Goondiwindi Regional Council and GrainCorp was arranged in Yelarbon on 9 May 2018. The purpose of the consultation was to inform the optimal railway alignment through the township of Yelarbon.</p> <p>The Project sought to understand the current operations of the Yelarbon Grain Silos and GrainCorp's plans for future operations and potential upgrades. The feedback received from GrainCorp regarding the East Sawmill Rd level crossing noted that there were no issues with closing this level crossing.</p> <p>A follow up meeting was held with GrainCorp on 6 September 2018 to present a number of concept design options, all of which included the closing of East Sawmill Rd level crossing. GrainCorp again indicated that there was no issue with closing this level crossing.</p> <p>Appendix AA: Traffic Impact Assessment, Section 3.7.2, details the reference design updates for the Yelarbon road rail interface and the proposed pedestrian crossing facilities.</p>	Appendix AA: Traffic Impact Assessment Section 3.7.2
237	237.0010	Private	Traffic and Transport	Baseline/background sampling	GrainCorp does not consider the use of a train speed that is the maximum allowable for any train service on Inland Rail to be a valid base assumption to calculate all road traffic delays.	Nil.	<p>Section 5.9.3 of Appendix AA: Traffic Impact Assessment includes a discussion of the lower and upper-level crossing time delay to road traffic and pedestrians for the Project, including consideration of traffic volumes during peak harvest time (volumes are detailed in Section 2.4). This Section also details how the level crossing time delay was calculated, including factors such as trains approaching from both directions, nearby crossing loops, train safe travel speed. Train lengths assessed for the Project are 1,800 m.</p> <p>Section 5.9.1 'Analysis assumption' states, vehicles' wait time at passive crossings were calculated by means of using the Australian Standard 1742.7, Manual of Uniform Traffic Control Devices, Part 7: Railway crossings. The estimated wait time is considered a function of:</p> <ul style="list-style-type: none"> ▶ The distance of the train from the crossing at the point where a driver approaching the rail crossing sights a train, judges a stop is needed, decelerates, and stops at a giveaway line ▶ The time it takes the train to drive along the distance from where the vehicle sees the train and decides to decelerate ▶ The time it takes the train to cross the level crossing ▶ Design vehicle consisting of a B-double for input parameters. <p>Train speed and train clearance times (s) calculations and assumptions (as obtained from road-rail interface) for the level crossing are as follows:</p> <ul style="list-style-type: none"> ▶ Train clearance times were calculated based on an assumed maximum train speed of 115 km/h ▶ Calculation of the freight train acceleration rate ▶ Distance of the level crossing from passing loops ▶ Distance required to accelerate to maximum turnout speed (50 km/h) ▶ Distance travelled while at constant maximum turnout speed ▶ Distance required to accelerate to maximum speed after the whole train has passed turnout ▶ Total distance required for train starting from turnout to reach maximum speed ▶ Total vehicles' wait time for trains of a maximum length of 1,800 m was estimated to be 104 seconds (including boom closure times). <p>The wait times determined for each individual level crossing were calculated based on:</p> <ul style="list-style-type: none"> ▶ Level crossing specific operating speeds which is impacted by topography and curvature of the alignment ▶ Time taken for the train to cross the level crossing ▶ Distance from train crossing loops ▶ Train length ▶ Summaries of traffic volumes (veh/hr) on road links at level crossing locations in the AM and PM peak hours for 2028 and 2040 (including consideration for peak harvest seasons, as per Section 2.4). ▶ A sensitivity test (to represent a conservative upper level crossing time delay) has been undertaken based on a maximum train speed of 60 km/h (as opposed to up to 115 km/h) to highlight the variability in closure times. <p>The typical active level crossing sequence for boom gate down time is, after 11 seconds (t=11) time interval the half-boom barriers commence to lower and after an additional 11 to 13 seconds (t=22-25) they will reach the fully lowered position and one of the warning bells is silenced. Where there are large articulated vehicles (B triples or Road trains), the delay before the booms commence lowering can be increased by a further 5 seconds to 16 seconds. In this instance the minimum warning time would be increased accordingly. After the last train has cleared the level crossing, the booms commence to rise to the upright position and the remaining warning bell will be silenced. The half-boom barriers reach the fully raised position within 10 seconds and the Type F highway signals become extinguished.</p> <p>As part of the design process, the Project has considered aspects of longer train lengths to allow for future flexibility in use of the network. However, as stated in Section 5.2 of Chapter 5: Project Description, maximum train lengths assessed within the revised draft EIS is 1,800 m long.</p>	Chapter 5: Project Description Section 5.2 Appendix AA: Traffic Impact Assessment Section 2.4 Section 5.9.1 Section 5.9.3
237	237.0011	Private	Flooding	Flood immunity	GrainCorp is pleased the results of the Condamine River hydraulic flood modelling demonstrate the Brookstead and Yarranlea sites will not be affected by flood waters.	GrainCorp is willing to assist ARTC with identification of those site locations with a history of negative impacts caused by surface water and soil moisture and their interaction with infrastructure.	<p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for land. The updated FIOs are summarised in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 4.2 of and Chapter 14: Flooding and Geomorphology, Section 14.6.3 (Table 14-4) of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>Events from 20% AEP up to 1% AEP, 1 in 2000, 1 in 10,000 and PMF have been assessed for multiple durations as detailed in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Under the 63% and 39% AEP size of events flows will be contained to existing drainage channels and provision of structures to convey the 1% AEP flows will maintain the flow distribution under these smaller events. Therefore impacts will be minimal. During future design stages the relevance of modelling smaller AEP events as proposed will be assessed, mainly for the purpose of construction planning.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Section 5 - 17
237	237.0012	Private	Surface Water	Increase in flows	GrainCorp disputes that the impact of increased moisture retention in soils surrounding the rail alignment and the subsequent impact on grain handling infrastructure has not been adequately addressed.	Nil.	<p>Longitudinal track drainage is proposed for the purpose of removing water that has percolated through the track ballast, and to divert surface runoff to the nearest bridge or culvert location before it reaches the subgrade. Without adequate track drainage, the subgrade may become saturated, leading to weakening and subsequent failure of the subgrade. Track drainage is proposed at specific locations along the Project alignment where the gradient is steep enough to divert surface runoff to the nearest bridge or culvert location. As with culverts, the design and location of track drainage will be refined, if required, during the detailed design stage (revised draft EIS Chapter 5: Project Description, Section 5.4.7). Thus, the provision of track drainage, where feasible and practicable, will also serve to drain water from facilities near to the alignment.</p> <p>A detailed soil assessment was undertaken in accordance with the Coordinator-General's additional requirements at a scale of 1:10,000 mapping scale and reviewed by a Certified Professional Soil Scientist. Land Resources is not best placed to respond to this issue as it is a geotechnical/ design matter; however, based on the soil survey results and assessment of impacts from the proposed rail infrastructure, the Land Resources team would consider it unlikely there will be any significant increase in soil moisture retention in soils surrounding the rail alignment or grain handling infrastructure as it is our understanding that the design spreads the train load minimising compactive forces in the soils beneath.</p>	Chapter 5: Project Description Section 5.4.7

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
237	237.0013	Private	Surface Water	Increase in peak water levels	The submitter is concerned about the surface water affecting concrete structures.	GrainCorp expects that detailed rail embankment design adjacent to GrainCorp facilities be developed considering best practice stormwater management to ensure surface water is rapidly and effectively directed away from susceptible concrete structures	<p>The revised reference design has been developed based on the following embankment slope and benching design:</p> <ul style="list-style-type: none"> ▶ A maximum slope of 1V:2H (0.5 gradient) for earth-fill embankments ▶ A maximum slope of 1V:3H (0.3 gradient) for embankment subject to flood, to reduce the potential for scour and increase the effectiveness of rock protection <p>This is stated in Section 5.4.5 of Chapter 5: Project description.</p> <p>As stated in Section 5.4.7 of Chapter 5, the purpose of longitudinal or track drainage is to remove water that has percolated through the track ballast, and to divert surface runoff to the nearest bridge or culvert location before it reaches the subgrade. Longitudinal drainage will be provided along the rail corridor to convey runoff from the track and to intersect overland flows draining to the rail formation and divert it towards cross-drainage structures or other suitable discharge points. Embankment drains have been designed to convey waters in a minimum 2% Annual Exceedance Probability flood event.</p> <p>Thus, the provision of track drainage, where feasible and practicable, will also serve to drain water from facilities near to the alignment.</p>	Chapter 5: Project Description Section 5.4.5 Section 5.4.7
237	237.0015	Private	Social Impact Assessment	Workforce accommodation village	GrainCorp requests a more robust assessment of the impact on local housing stock and the potential for a detrimental outcome for both GrainCorp employees and the communities in which they live.	Nil.	<p>As outlined in revised draft EIS Appendix X: Social Impact Assessment, Section 8.4.4 the Contractor will be required to develop an Accommodation Management Plan (AMP). The plan will include measures to minimise impacts on rental availability in potentially impacted communities, e.g. by providing accommodation facilities and discouraging single status personnel from renting houses.</p> <p>Appendix X: Social Impact Assessment, Section 7.3.5 states that if rental vacancy rates remain low (as is expected), ARTC would take steps to mitigate negative impacts by requiring workers to take up occupancy in the non-resident workforce accommodation facilities provided, rather than in the rental market or short-term accommodation premises (as appropriate).</p> <p>The AMP requirements Section 8.4.4 of Appendix X: Social Impact Assessment have been updated to clarify that housing baseline data will need to be revised as part of the AMP development.</p>	Appendix X: Social Impact Assessment Section 7.3.5 Section 8.4.4
237	237.0016		Economics		GrainCorp is concerned for its ability, and for that of local grain growers, to afford, attract and retain workers due to the creation of other (possibly higher-paid) employment opportunities.	Nil.	<p>ARTC has recently updated the EIS economic modelling to reflect the current labour market conditions for the revised draft EIS. If labour market conditions at the national and state level remain in the recent range, the Project's construction works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. Refer to Chapter 18, Section 18.6. However, the economic assessment indicates in Section 5.2 (Appendix Y: Economic Impact Assessment) that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment.</p> <p>ARTC will implement mitigation measures to ensure impacts to the availability of the local workforce is reduced. These include:</p> <ul style="list-style-type: none"> ▶ Establishing the IR Skills Academy training and capacity building initiatives (to increase the labour pool) ▶ Monitoring labour draw in consultation with key stakeholders ▶ Corrective actions if required, e.g. to recruitment or training strategies 	Chapter 18: Economics Section 18.6 Appendix Y: Economic Impact Assessment Section 5.2
237	237.0017	Private	Hazard and Risk		GrainCorp expects early involvement in development of the Biosecurity Management Plan, and that it will be completed to GrainCorp's satisfaction.	Nil.	A Biosecurity Management Plan will be developed prior to the commencement of construction by the 'Contractor' as a component of the Construction Environmental Management Plan. This Plan will be developed in consultation with relevant stakeholders and affected landholders (Chapter 24: Draft Outline Environmental Management Plan).	Chapter 24: Draft Outline Environmental Management Plan
237	237.0018	Private	Stakeholder Engagement		GrainCorp expects assurance from the proponent that the future consultation process will seek communications with GrainCorp regarding impacts to leased land at which GrainCorp undertakes operations	Nil.	<p>Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report, Section 5.1 and 5.2 details the ongoing stakeholder engagement program with directly impacted landowners and businesses. Since the submission, ARTC has engaged with GrainCorp, including to discuss:</p> <ul style="list-style-type: none"> ▶ stakeholder's concerns regarding the closure of East Sawmill Rd level crossing in Yelarbon ▶ potential interruptions to rail transport on existing rail lines, requiring further engagement with QR and GrainCorp during the programming of construction activities, to minimise impacts on grain haulage by rail ▶ noise mitigation control measures at all sites to ensure WH&S obligations are met ▶ ongoing consultation to ensure revised reference design minimises impacts on GrainCorp's operations wherever possible. <p>ARTC will continue to work collaboratively with GrainCorp to progress solutions on the above concerns, including addressing access to the Yelarbon silos during detailed design. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p>	Chapter 6: Stakeholder Engagement Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 5.1 Section 5.2
237	237.0019	Private	Hazard and Risk	construction traffic	Impacts on emergency services GrainCorp is disappointed that consultation is yet to be undertaken with Toowoomba and Goondiwindi Local Disaster Management Groups. GrainCorp considers that local emergency services will experience real impact as a result of the construction activities and the influx of construction workers.	GrainCorp also expects that the post-approval Workforce Management Plan will contain a specific "Emergency Services" section, developed with the early involvement of GrainCorp.	<p>ARTC engaged with stakeholders has engaged broadly since public consultation of the revised draft EIS to better understand the risks, revise the reference design and ensure any impact to safety or emergency services is minimised. Engagement through local council representatives, community information sessions and Community Consultative Committee meetings has allowed community members to share information about their safety concerns.</p> <p>An ARTC engaged with stakeholders representative attends the quarterly District Disaster Management Group (DDMG) meetings and presents Project updates to increase dialogue about the impact of the alignment on emergency services. Additional to this, ARTC engaged with stakeholders has participated in a disaster simulation event with the DDMG, which simulated the evacuation of Inglewood in the event of a flood.</p> <p>Details of ARTC's consultation with the DDMG to-date are provided in Appendix E: Consultation Report of the revised draft EIS. ARTC engaged with stakeholders commits to continuing consultation with the DDMG and other local disaster management groups, as relevant, through the detailed design and construction works stages of the Project.</p>	Appendix E: Consultation Report
238	238.0001	State Agency	Approvals/ conditions/ recommendations		The EIS does not address Section 9.10 requirements of the ToR. The draft EIS lists five prescribed Environmentally Relevant Activities (ERAs) that may be triggered however does not identify the relevant thresholds or provide supporting information for the administering authority to decide whether an approval should be granted and if so, what conditions should be applied. The ERAs required for a Project and the relevant supporting information are ordinarily provided in the draft EIS for assessment. The department is not aware of any exemptions for the proponent not to provide all the required assessment and supporting information in the draft EIS.	Update the draft EIS to provide all the required supporting information to allow the administering authority to decide whether an approval should be granted for a prescribed ERA and to recommend relevant conditions. This includes a detailed assessment of all potential Project impacts, the effectiveness of all proposed mitigation and management measures for the likely ERAs and any other environmental approvals triggered by the proposed Project under the EP Act.	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design and construction works stages (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.2.1).	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2
238	238.0002	State Agency	Approvals/ conditions/ recommendations		The draft EIS does not fully address ToR requirement of Section 7.1, 7.29.5 9.7,9.9 and 9.10.	The draft EIS should discuss any applicable exemptions under the EP Act or NC Act. If no relevant exemption applies, the draft EIS should provide detailed site-specific environmental assessment information in accordance with the ToR to allow the department to adequately assess the potential impacts of the Project on identified environmental values and to make an appropriate recommendation to the Coordinator-General on whether the approval should be granted. The draft EIS should include a flow chart indicating the key environment approvals and opportunities for public comment. The draft EIS should provide required information under Section 125 of the EP Act to support relevant ERAs, including information required to assess avoidance investigations, potential Project impacts and the effectiveness of proposed mitigation and management measure and potential offsets, if required, to ensure the proposed Project meets acceptable environmental performance standards.	<p>Chapter 3: Legislation and Project Approvals summarises the Commonwealth and State Government legislation relevant to the Project and identifies the approvals, permits, licences and authorities necessary for the planning, construction works and operations stages of the Project. Chapter 3: Legislation and Project Approvals Process includes a flow chart (Figure 3-2) that sets out the steps in the Coordinated Project process, including the opportunities for public submissions. Secondary approvals have been noted and discussed as relevant in the various specialist chapters, addressing the requirements of Section 7 of the Terms of Reference.</p> <p>The Project falls within the definitions of Government Supported Transport Infrastructure, both as defined under the Transport Infrastructure Act and the Planning Act, and is therefore subject to the statutory provisions and exemptions accordingly.</p> <p>Table 3-2 of Chapter 3: Legislation and Project Approvals Process includes a list of ERAs that may be required for the construction of the Project. Preliminary data on each of the activities associated with the ERAs has been provided as appropriate and where available.</p> <p>However, the revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during detailed design and the construction works stage (Section 3.2.1, Chapter 3: Legislation and Project Approvals Process).</p> <p>The revised draft EIS has been updated to reflect TMR and other State agency comments.</p>	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2 Figure 3-2
238	238.0003	State Agency	Approvals/ conditions/ recommendations		Section 9.10 of the ToR requires that the draft EIS lists separately any Environmentally Relevant Activities (ERA) to be conducted as part of the proposed Project, with the appropriate ERA number, activity name and required threshold. The draft EIS identifies five prescribed ERAs listed under Schedule 2 of the Environmental Protection Regulation 2019 (EP Regulation) that will potentially be triggered by the Project but not the relevant thresholds, the locations for these activities and their extent have also not been clearly specified. The draft EIS states the ERA thresholds will be determined following refinement of a construction methodology. It is not clear when this would occur within the EIS assessment process. It should be noted that there are certain environmental risks associated with different thresholds of the same ERA. For example, ERA 16-1 (dredging) may have different impacts on the receiving environment than ERA 16-2(extracting) or ERA 16-3(screening)). Therefore, it is important to determine the relevant ERA thresholds to assess these risks appropriately.	Amend the draft EIS to provide a detailed description of all ERAs that are potentially triggered by the Project activities, including their thresholds, locations, scale, and intensity (refer to Schedule 2 of the EP Regulation for a detail description of all prescribed ERAs). This information should include, but not be limited to: a clear description of the land (location) on which the activities will be carried out the volume and type(s) of chemicals proposed to be stored as part of the Project the quantity of material proposed to be extracted and screened in a year as part of the Project (only in relation to the extractive and screening activities that are not subject to the exemption under ERA 16 definition)the quantity of material proposed to be crushed, milled, ground, or screened in a year(that are subject to the ERA 16 exemption) which may instead trigger ERA 33 Crushing, milling, grinding, or screening the number of vehicles that will be used for regulated waste transport and a volume and type(s) of regulated waste proposed to be transported the volume of water that is proposed to be treated in a day as part of the water treatment activity, and details of proposed treatment process. Provide detailed information of the likely impacts to environmental values resulting from the proposed prescribed ERAs and their proposed relevant thresholds, and describe mitigating measures proposed to be implemented to minimise these impacts. It is recommended that the following guidelines for technical information requirements for an EA be consulted: business.qld.gov.au/running-business/environment/licence/permits/applying/technical . Some of the activities identified in the draft EIS contain standard or model conditions. Amend the draft EIS to describe how the proposed Project would meet these standards. These conditions can be found at: business.qld.gov.au/runningbusiness/environment/licence/permits/applying/conditions . Note that ERA 16 includes an exemption clause which will likely apply to some aspects of this Project. Those aspects include the extraction of quarry material that are for the purpose of preparing a site for the construction of railway. However, for these aspects ERA 33 will apply if crushing, milling, grinding, or screening are proposed at the trigger limits. It should be noted that any matter outside this scope of the exemption clause will require ERA 16 if the trigger limits are met.	<p>Chapter 3: Legislation and Project Approvals Process, Section 3.4.13 Forestry Act 1959, has been updated in the revised draft EIS. It states the following:</p> <p>Tenure arrangements, including compensation and offset requirements, for the revocation of State forest land will continue to be progressed during and following the completion of the EIS process in accordance with the operational policy: Revocation of QPWS managed areas (QPW/ 2016/ 1877 v1.03) and in continued consultation with DAF, DES and Department of Resources.</p> <p>To facilitate technical investigations before the partial revocation process, ARTC will obtain, separate to this revised draft EIS and where necessary, approvals for (Chapter 8: Land Use and Tenure, Section 8.6):</p> <ul style="list-style-type: none"> ▶ Investigative works under Section 56 of the Forestry Act ▶ Permits to interfere with State-owned forest products and quarry material under Part 6 of the Forestry Act. <p>The information required to support applications for the above approvals will become available through the detailed design stage. It's noted that following consultation between ARTC and DES (QPWS&P) on 23 September 2021, ERA 16 definition)the quantity of material proposed to be crushed, milled, ground, or screened in a year(that are subject to the ERA 16 exemption) which may instead trigger ERA 33 Crushing, milling, grinding, or screening the number of vehicles that will be used for regulated waste transport and a volume and type(s) of regulated waste proposed to be transported the volume of water that is proposed to be treated in a day as part of the water treatment activity, and details of proposed treatment process. Provide detailed information of the likely impacts to environmental values resulting from the proposed prescribed ERAs and their proposed relevant thresholds, and describe mitigating measures proposed to be implemented to minimise these impacts. It is recommended that the following guidelines for technical information requirements for an EA be consulted: business.qld.gov.au/running-business/environment/licence/permits/applying/technical. Some of the activities identified in the draft EIS contain standard or model conditions. Amend the draft EIS to describe how the proposed Project would meet these standards. These conditions can be found at: business.qld.gov.au/runningbusiness/environment/licence/permits/applying/conditions. Note that ERA 16 includes an exemption clause which will likely apply to some aspects of this Project. Those aspects include the extraction of quarry material that are for the purpose of preparing a site for the construction of railway. However, for these aspects ERA 33 will apply if crushing, milling, grinding, or screening are proposed at the trigger limits. It should be noted that any matter outside this scope of the exemption clause will require ERA 16 if the trigger limits are met.</p> <p>In addition to the above, a number of 'special leases' have been granted over State forest. If ARTC is unable to negotiate the surrender of these leases it will require DTMR as the constructing authority to make a request to the DoR for the resumption of the special leases by way of order in council under the Land Act.</p>	Chapter 3: Legislation and Project Approvals Process Section 3.13 Chapter 8: Land Use and Tenure Section 8.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0004	State Agency	Approvals/ conditions/ recommendations		The following Section of the ToR have not been adequately addressed nor demonstrated in the draft EIS the relevant matters relating to each of the proposed prescribed ERAs triggered and associated locations: Section 6.1 it should be clear the environmental values impacted on for each proposed prescribed ERA and associated locations. Section 6.3 - baseline information relevant to the environmental values that specifically relate to the proposed prescribed ERAs triggered and locations. Section 6.5 and 6.6 need to provide information specifically for the operation of the proposed prescribed ERAs triggered. Section 7.5 - no geographical coordinates provided within respects to the location of each of the proposed prescribed ERAs or site layout plans. Section 6.4 and 7.6 regarding significant residual impact and whether environmental offsets are required. Section 10.8 plans and drawing provided do not detailed locations and layouts of proposed prescribed ERAs triggered and so the department are unable to assess the impacts adequately. Section 11.22 and 11.23 information needs to be included on decommissioning components/rehabilitation of sites, including on how the works are to be undertaken for the proposed prescribed ERAs sites. Section 11.36 to 11.103, 11.118 to 11.176 needs to include information on how they relate to each of the locations where the proposed prescribed ERAs are to be undertaken.	Amend the draft EIS to include all the required information regarding ERAs that will or are likely to be triggered by the Project. Update the ToR Compliance Table to accurately reflect the quality of the assessment information provided in the draft EIS in accordance with the ToR requirements. Furthermore, potential impacts need to accurately quantified and rigorously assessed to ensure best practice environmental impact assessment. The draft EIS by simply stating for example, a best practice mitigation measure without providing the required site-specific detailed supporting information and assessment to test the proposed measures applicability and effectiveness to mitigate the potential Project impact is not considered best practice environmental management. The draft EIS is required to provide site-specific environmental data and associated supporting information in accordance with approved guidelines. The draft EIS should discuss robust evidence-based assessments that are based on good scientific methods. High-level, in-principle descriptions do not demonstrate best practice environmental management in environmental impact assessment and development assessment.	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design stage and construction works stage. Appendix A2: Terms of Reference Cross Reference Table is used as a guide to direct readers to where terms of reference items have been addressed in the revised draft EIS.	Appendix A2: Terms of Reference Cross Reference Table
238	238.0005	State Agency	Approvals/ conditions/ recommendations		Section 5.4.1.4 indicates that ERA 16 extractive and screening will be required for the proposed Project, and that the Project will involve the construction of 20 new bridges over watercourse crossings (refer to Section 5.2.5 of the draft EIS). The new bridge structures will require installation of concreted piers within the bed of waterways. This could potentially trigger a need for ERA 16(1) dredging. Insufficient site-specific information has been provided to determine if this is the case.	Review the proposed bridge construction methodology and confirm whether ERA 16(1) dredging will be triggered for the construction of 20 new over watercourse crossings (bridges). If this ERA is triggered, provide detailed information on the volume and quality of material that will be removed from the bed of waterways in a year, the impacts to environmental values resulting from the proposed activity (contaminants of concern that are expected to be generated by the activity, both on and off site) and a time and duration of the instream works), and mitigating measures proposed to be implemented to address these risks. Chapter 3 and 5 (and other relevant chapters) will need to be amended accordingly to capture ERA 16(1) for dredging. The following guidelines should be used in undertaking the necessary assessment: - National Assessment Guidelines for Dredging environment.gov.au/system/files/resources/8776675b-4d5b-4ce7-b87e1959649203a6/files/guidelines09.pdf - Stormwater Guideline-environmentally relevant activities environment.des.qld.gov.au/_data/assets/pdf_file/0028/89119/pr-gl-stormwaterguideline-era.pdf	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design and construction works stages (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.2.1).	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2
238	238.0006	State Agency	Approvals/ conditions/ recommendations		Sections 5.3.1, 5.3.6, 5.3.9, 5.4.11, 5.4.21, 11.8.1.2 of the draft EIS indicate that ERA 63 sewage treatment, will be required as part of the proposed Project. The draft EIS states that three non-residential workforce accommodations (300 bed capacity each) housing initially 300 equivalent persons (staff) in the vicinity of the townships Yelarbon, Ingleswood and Millmerran (Turallin) are proposed to be constructed. It is proposed to install and operate a temporary package sewage treatment at each of the three sites. It is unclear how the disposal of treated sewage will be disposed. Insufficient information has been provided in the draft EIS for the department to decide whether an approval should be granted.	Confirm whether ERA 63 will be triggered as part of the proposed Project. If the activity is required, amend the draft EIS to provide the information required under Section 125 of the Environmental Protection Act 1994 to support the Projects application for ERAs in accordance with Section 9.10 of the Tor. Provide detailed information of the likely impacts to environmental values resulting from the proposed prescribed ERA and its proposed relevant thresholds, and describe mitigating measures proposed to be implemented to minimise these impacts. It is recommended that ARTC request a pre-lodgement meeting with the department's technical specialist to discuss the technical information requirements for ERA 63. The following resources have also been identified as relevant to this activity: - Assessing applications for sewage treatment works Assessing applications for ERA 63 threshold 2 sewage treatment works (des.qld.gov.au)	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design and construction works stages (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.2.1).	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2
238	238.0007	State Agency	Approvals/ conditions/ recommendations		ERA 16 and 33 would apply if those activities are proposed at the trigger limits. The location, scale and extent of the proposed extraction activities has not been adequately described in the draft EIS.	Review the scale and locations of the proposed earthworks and determine which cutting and filling activities associated with the proposed Project would be exempt under Schedule 2 of the EP Regulation, and which would require an approval for ERA 16-2 (extracting), ERA 16-3 (screening) and ERA 33 (crushing, milling, grinding, or screening) approvals. Specify the location, scale and duration of all extractive and screening activities that will trigger an ERA 16 and ERA 33 assessments. Chapter 3 and 5 (and other relevant chapters) will need to be amended accordingly to capture ERAs 16 and 33, where appropriate.	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design and construction works stages (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.2.1).	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2
238	238.0008	State Agency	Approvals/ conditions/ recommendations		Section 3.5.10.2 of the draft EIS indicates that ERA 41 cement manufacturing may be triggered by the proposed Project. In accordance with Schedule 2 of the EP Regulation, ERA 4 cement manufacturing consists of manufacturing 200 t or more of cement in a year, or calcining 200 t or more of limestone. Based on a description of the proposed activity that is included in Section 5.4.8, it appears that the proposed Project will involve the construction of several concrete batching sites rather than cement manufacturing facilities. In 2013, amendments under the Environmental Protection Regulation removed low risk threshold ERAs such as concrete batching plants. A development approval under the Planning Act 2016 may be require for this activity. Note: An environmental code of practice has been prepared by the department to provide guidance to operators to help them comply with the EP Act by meeting their general environmental duty and outlines the environmental best management practices in the industry.	Confirm whether ERA 41 will be triggered as part of the proposed Project. If the activity is required, amend the draft EIS to provide the information required under Section 125 of the Environmental Protection Act 1994 to support the Projects application for ERAs in accordance with Section 9.10 of the ToR. The following resources have also been identified as relevant: - Emission estimation technique manual for Cement manufacturing npi.gov.au/system/files/resources/6c9f8a4-55a7-4714-7528-44621b78f612/files/cement.pdf - Stormwater Guideline-environmentally relevant activities environment.des.qld.gov.au/data/assets/pdf_file/0028/89119/pr-gl-stormwaterguideline-era.pdf - Code of Practice for the Concrete Batching industry Code of practice for the concrete batching industry EM1305 (des.qld.gov.au)	Table 3-2 of Chapter 3: Legislation and Project Approvals Process has been amended by removing the reference to ERA 41 Cement manufacturing from the list of ERAs that may be required for the Project. The environmental code of practice for concrete batching operations (since updated to 2023) is noted.	Chapter 3: Legislation and Project Approvals Process Table 3-2
238	238.0009	State Agency	Approvals/ conditions/ recommendations		Section 5.4.7, 5.4.9 and 5.4.10 of the draft EIS indicates that ERA 08 Chemical storage will be carried out as part of the construction phase of the proposed Project. The draft EIS indicates fuel (diesel) is to be stored at laydown areas along the proposed Project alignment as well as construction chemicals. Table 5.30 simply provides an indicative list of dangerous goods and hazardous substances and some quantities to be used. There is no information on the total quantities of each type of chemical to be used. Therefore, it is not certain if ERA 08 will be triggered. The necessary detailed assessment information should be provided in the draft EIS.	Review the description of ERA 08 chemical storage prescribed in Schedule 2 of the EP Regulation and confirm whether ERA 08 will be triggered as part of the construction phase of the proposed Project. Should the ERA be triggered, specify the relevant ERA threshold(s) required for the Project and provide detailed information on the impacts to environmental values resulting from the proposed activity and describe relevant mitigation measures to be implemented to address these risks. Chapter 3 and 5 (and other relevant chapters) will need to be amended accordingly regarding ERA 08. The following guidelines may assist in undertaking the necessary assessment: - Stormwater Guideline- environmentally relevant activities environment.des.qld.gov.au/_data/assets/pdf_file/0028/89119/pr-gl-stormwaterguideline-era.pdf	The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during the detailed design and construction works stages (see Chapter 3: Legislation and Project Approvals Process, Table 3-2 and Section 3.2.1).	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Table 3-2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS	
238	238.0010	State Agency	Surface Water	Surface Water	The draft EIS discusses the location of bridge structures on waterway crossings. However, the draft EIS does not provide an adequate water quality risk assessment of waterway crossings. The draft EIS should identify site-specific information on local aquatic ecosystems features (e.g. pools, riffles, channel form, bank stability, in-stream flora and habitat features) and environmental values that should be protected and enhanced. The draft EIS states proposed Project activities may concentrate water flows, redirect water flows, increased water velocities, change the duration and frequency of inundation of some Project areas and increase water depth. The draft EIS states that modification to riparian zone and works within waterways and wetland during construction phase of the Project will occur. However, the draft EIS does not identify the location of where temporary and permanent diversion and impoundment of drainage line and waterways would directly impact the ecological integrity, ecological health, including water quality of the aquatic and associated riparian habitats. The potential impacts of construction activities at various waterway crossings, including effective mitigation measures and water quality monitoring strategy for these locations is not adequately discussed in the draft EIS.	The draft EIS should provide sufficient site-specific information to assess the potential risk of construction on environmental values, including stream water quality, ecological habitats, and aquatic ecosystem values, particularly at environmentally sensitive locations like waterway crossings. Assesses background/ ambient water quality at stream crossing locations and describe how water quality will continue to be protected. For example, if waterways are perennial or have water flowing during the time of construction, risks are likely to be higher, as compared to construction during periods with dry bed and banks. Stormwater sediment runoff and erosion, as well as contamination during construction and operations, is likely to be a potential risk at all waterway crossing locations. Each waterway crossing should be identified and assessed based on the local physical attributes and the type of disturbance likely to occur. Location specific risks should be identified and measures/ controls that will be taken to minimise and manage risks should be clearly described. This information should be included in the draft EIS, and well before any specifications and contracts are sought for detailed design and construction. The draft EIS should provide a detailed assessment of erosive velocities for existing waterways. If there are signs of current erosion in areas identified as exceeding an accepted threshold then accepting no increase in existing velocities may not be acceptable and an alternative approach may be required. Detail the approach to mitigation measures for high velocities, particularly if proposed engineering solutions are not feasible. The draft EIS should detail and assess the propensity for scour, erosion, and geomorphological changes to occur within any watercourses or overland flow paths affected by proposed Project. The draft EIS should describe the location temporary and permanent diversion and impoundment of drainage line and waterways, specific erosion and sediment controls. It should have due consideration of, but not be limited to: local site conditions, the ecological function and integrity of the site (e.g. in-stream flora and fauna habitats) riparian habitats and the season. Effective site-specific mitigation measures, particularly regarding the stability of watercourses should be developed to reduce the potential environmental risks at identified locations. These measures should be adequately described and assessed in the draft EIS. Update Appendix P, Section 7.2 Proposed mitigation measures, and Chapter 10 and 12 to reflect the site-specific assessments.	The revised draft EIS Chapter 13: Surface Water, Section 13.5 provides a description of the surface water quality impact assessment for the Project, including an assessment of the quality of water and the existing uses of surface waters (environmental values), as well as the water quality objectives that have been established to protect these values. The existing environment is described, and an assessment is made of the potential impacts of the Project. Potential short and long-term impacts on local and regional surface waterways have been assessed based on a review of the Project's construction works and operations stages. The results of the impact assessment and recommended mitigation measures have been outlined in Section 13.6 of Chapter 13: Surface Water. There is potential for contaminants and pollutants associated with the construction and operation of the Project to enter aquatic environments, resulting in the alteration or loss of potential habitat for terrestrial and aquatic species (Chapter 11: Flora and Fauna). The disturbance and modification of some riparian zones and works within watercourses/ wetlands during the construction works stage of the Project, as well as during temporary and permanent diversions of drainage lines/ watercourses, has the potential to reduce the ecological integrity of the watercourse, thereby impacting on structural aspects that support breeding and foraging requirements of aquatic species. The detailed design will be developed to ensure that the potential for diversion of watercourses, (as defined under the Water Act 2000), and waterways (as defined under the Fisheries Act 1994) are minimised Chapter 11: Flora and Fauna.	As outlined in Chapter 11: Flora and Fauna, a Surface Water Management Plan will be developed as a component of the CEMP in consultation with the Department of Regional Development, Manufacturing and Water and DES (Chapter 13: Surface Water). The Plan will provide a surface water monitoring framework for the Project that establishes: <ul style="list-style-type: none"> Additional monitoring and sampling required to establish baseline water quality conditions, as a continuation of data collected during development of the revised draft EIS Watercourse-specific water quality values, based on baseline data, Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (ANZECC & ARMCANZ), 2018), QWQG and relevant Water Quality Objectives (WQO) under the Environmental Protection (Water and Wetland Biodiversity) Policy 2019. In situ water quality parameters (pH, electrical conductivity, dissolved oxygen, temperature, oxidation-reduction potential and total dissolved solids) and laboratory analysis required for samples collected at each sampling location Quality assurance and quality control requirements for surface water sampling and analysis A risk management framework for evaluation of the risks to surface water quality and ecosystems in the receiving environment. 	Chapter 13: Surface Water Section 13.5 Section 13.6 Chapter 11: Flora and Fauna
238	238.0011	State Agency	Surface Water	Baseline/ background sampling	The draft EIS does not adequately address the criteria outlined in Sections 11.37, 11.38 and 11.39 of the ToR. Baseline monitoring strategy - Insufficient background water quality sampling is provided in the draft EIS. Baseline in-situ water quality sampling outcomes presented in this Section have some limitations. The draft EIS discussion of surface water impact assessment methodology is inadequate. The department notes the proposed rail alignment crosses many waterways in the Condamine and Borders River Basins. More specifically, water quality samples were collected from 43 sites from various watercourses, waterways and other drainage features over the period of one year from June 2018 to May 2019. Approximately five samples per location were collected to establish the background water quality along, with some limited effort to capture the seasonal variability. Although the results based on 5 sampling rounds provide a valuable initial understanding of the local water quality at various locations, this data have limitations. At least 12-24 samples over the period of 1 to 2 years are typically required to capture the local background or reference levels of these indicators as per the Queensland Water Quality Guidelines (2009).	The department recommends the water quality sampling program continue in accordance with the Queensland Water Quality Guidelines (2009) requirements. The department notes that rainfall events in Q1 2021 would typically provide flow events in watercourse at the Project's monitoring locations. The results of the ongoing sampling should be included in the draft EIS and presented in the WQMP as committed to in the Section 7.3 of the Appendix P, Surface Water Technical Report Part 1 of 2. Useful recommended references include: - QWQG (2009), Department of Environment and Heritage Protection (2009) Queensland Water Quality Guidelines, Version 3, ISBN 978-0-9806986-0-2 hor360.com.au/wordpress/uploads/Irrigation/Irrigation%20Sustainability/QLD%20Water%20Quality%20Guidelines%202009.pdf - Water Quality Australia (2018) - The National Water Quality Management Strategy, Department of the Environment, Australian Government - Website: agriculture.gov.au/water/quality/hwqms	Additional baseline water quality monitoring commenced in late 2020 and obtained data over a 12-month period to late 2021. Section 7.3.1 of Appendix S: Surface Water Quality Technical Report has been updated to reflect this. These additional data were sufficient to develop interim site-specific WQOs. The updated construction timing is reflected in Section 5.3.6 of Chapter 5: Project Description of the revised draft EIS and in Appendix S: Surface Water Quality Technical Report to remove any ambiguity about the inclusion of the baseline monitoring program to construction impact assessment. Baseline water quality monitoring data applicable for inclusion within the revised draft EIS has been incorporated to further establish existing environment conditions and water quality objectives for identifying any instance of impact from construction. The results of the 12-month sampling program, carried out in accordance with the Queensland Water Quality Guidelines (2009) requirements, have been included in the revised draft EIS and presented in the WQMP as committed to in the Section 7.3 of the Appendix S: Surface Water Quality Technical Report.	Chapter 5: Project Description Section 5.3.6 Appendix S: Surface Water Quality Technical Report Section 7.3 Section 7.3.1	
238	238.0012	State Agency	Surface Water	Baseline/ background sampling	The draft EIS does not adequately address the criteria outlined in Section 11.47 of the ToR. Baseline water quality outcomes - The draft EIS summarises the water quality results of baseline monitoring in the Table 12.6 and illustrated in Figure 12.1. The department notes several exceedances to pH, turbidity, electrical conductivity, dissolved oxygen and chlorophyll-a have occurred for each indicator when compared to the respective water quality objectives for the Condamine and Borders River Basins. The draft EIS indicates patterns of water quality degradation in the observed waterbodies based on 5 sampling occasions. These samples were collected during low flow conditions, or whenever water was available at the watercourses, as per the discussions in Appendix P. As mentioned above, due to the limited number of samples collected for each water quality indicator, any conclusion about stream condition should be made cautiously. Note: Samples should not be taken if a stream is not flowing. Furthermore, the department notes widespread rainfall events in the Project area during Q1 2021. The department expects the baseline sampling program to have continued to capture local background or reference levels in accordance with the Queensland Water Quality Guidelines.	As discussed above, site-specific water quality objectives should be derived in accordance with the Queensland Water Quality Guidelines, once enough samples over a period of 1-2 years is collected. The finding, patterns of water quality degradation at majority of water bodies as compared to the respective regional water quality objectives in the current version of the draft EIS should be re-evaluated once sufficient baseline data is collected and should be presented in the amended draft EIS.	Additional baseline water quality monitoring commenced in late 2020 and obtained data over a 12-month period to late 2021. Section 7.3.1 of Appendix S: Surface Water Quality Technical Report has been updated to reflect this. These additional data were sufficient to develop interim site-specific WQOs. The updated construction timing is reflected in Section 5.3.6 of Chapter 5: Project Description of the revised draft EIS and in Appendix S: Surface Water Quality Technical Report to remove any ambiguity about the inclusion of the baseline monitoring program to construction impact assessment. Baseline water quality monitoring data applicable for inclusion within the revised draft EIS has been incorporated to further establish existing environment conditions and water quality objectives for identifying any instance of impact from construction. The results of the 12-month sampling program, carried out in accordance with the Queensland Water Quality Guidelines (2009) requirements, have been included in the revised draft EIS and presented in the WQMP as committed to in the Section 7.3 of the Appendix S: Surface Water Quality Technical Report.	Chapter 5: Project Description Section 5.3.6 Appendix S: Surface Water Quality Technical Report Section 7.3 Section 7.3.1	
238	238.0013	State Agency	Surface Water	Water quality	The draft EIS does not adequately address the criteria outlined in Section 11.45 of the ToR. Potential impact monitoring strategy - The draft EIS does not include sufficient detail on the water quality monitoring strategy at various stream crossings during construction. Potential direct and indirect impacts to the surface water quality during construction activities are presented in the Appendix P, Section 6.4.1.1, Table 6.25. Sediment loading, increased salinity from disturbance of saline soils, nutrient loading and elevated levels of contaminants (including toxicants) to waterways at multiple locations, are the main risks identified during the Project construction stage. These risks may vary from site- to-site depending upon the scope and scale of construction activities. However, in-stream monitoring strategies, and potential impact monitoring at various waterway crossings, are not adequately described in the draft EIS.	The draft EIS should provide site-specific information to assess the potential risks of construction on stream water quality. For example, if waterways are perennial or have water flowing during the time of construction, risks are likely to be higher, as compared to construction during periods with dry bed and banks. Each waterway crossing should be assessed based on the local attributes of the creek or river and the type of disturbance likely to occur, to develop a risk rating for each location. This information should be adequately described in the draft EIS. In accordance with the requirements of the Section 11.45 of the ToR, Table 7.1 - Surface Water Quality Mitigation Measures and Monitoring and Section 7.3.2 should be updated with site- specific mitigation measures proportional to the risks presented by the proposed construction activities.	The revised draft EIS has been updated to include an additional 12 months of surface water data collected from December 2020 to November 2021, in addition to the data collected from June 2018 to May 2019. These additional data were sufficient to develop interim site-specific WQOs. The data has been re-evaluated and presented in the revised draft EIS in Appendix S: Surface Water Quality Technical Report, Sections 3.1.2 and 5.5, and Chapter 13: Surface Water, Section 13.3.3 and 13.4.5. In addition to extra water quality data, a geomorphological assessment of all water features intersected by the Project has been conducted (Appendix H: Geomorphology Report) and site-specific erosion threshold velocities have been derived (Appendix T2: Hydrology and Flooding Technical Report - Volume 2) to better inform the design of infrastructure at watercourse crossing locations. A summary of the aquatic ecosystem values at each monitoring site is provided in the Chapter 11: Flora and fauna and EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report, including a description of the physical environment, aquatic habitat, flora and fauna at the site and existing local impacts. The additional data and assessments conducted since release of the draft EIS have resulted in a more robust assessment of potential impacts to water features, including water quality, throughout the revised draft EIS.	Chapter 13: Surface Water Section 13.3.3 Section 13.4.5 Appendix H: Geomorphology Assessment Appendix S: Surface Water Quality Technical Report Section 3.1.2 Section 5.5 Appendix T2: Hydrology and Flooding Technical Report - Volume 2	
238	238.0014	State Agency	Surface Water	Water quality	The draft EIS does not adequately address the criteria outlined in Section 11.43 of the ToR. Mitigation measures during construction phase - The draft EIS simply states that a Surface Water Management Plan will be developed in future. It does not elaborate on the receiving environment water quality monitoring program (REMP) required to assess the effectiveness of the mitigation measures in place to protect the surface water quality prior to the commencement of construction activities. Furthermore, the draft EIS states that various upstream and downstream locations were included during the baseline sampling. However, it does not detail how these upstream and downstream monitoring points would be utilised to monitor the potential Project construction impacts. In contrast, the construction monitoring in the Section 7.3.2 of the draft EIS focuses on the baseline monitoring, data quality control, data management and reporting. Similarly, no in-stream water quality monitoring measures are proposed when discussing the impacts to the water morphology (see Section 6.4.2).	The draft EIS should detail a suitable receiving environment monitoring program (at all major creek/ waterway system locations) to effectively manage identified impacts from proposed construction activities at waterway crossings. This is particularly important at those locations where baseline data has been collected, provided these locations are suitable and downstream of the activities potentially affecting water quality. The draft EIS should identify proposed monitoring locations, monitoring frequency and indicators of surface and groundwater quality. The water quality indicators and relevant sampling timing for the monitoring should be detailed in the draft EIS as per the requirements of the Section 11.43 of the ToR. The department would expect localised stresses on the creek systems along the rail construction corridor. The department recommends including at least one downstream receiving environment monitoring point at these creeks to ensure minimum potential impacts on the waterways, and protection of water quality and environmental values.	ARTC has commenced a surface water monitoring program (equivalent to a REMF) for the Project (Section 13.6.3 of Chapter 13: Surface water). This Program consists of baseline surface water monitoring (commenced to inform the EIS) and construction surface water monitoring. The locations, frequency and parameters of interest for water quality sampling during construction will be subject to confirmation as part of the CEMP, to be reviewed and accepted by the Environmental Monitor. Surface water monitoring locations will be reviewed prior to commencement of construction to ensure that locations of potential impact are appropriately represented in the construction works stage of the surface water monitoring program.	Chapter 13: Surface Water Section 13.6.3	

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0015	State Agency	Surface Water	Water quality	The draft EIS does not adequately address the criteria outlined in sections 11.41, 11.42, 11.43, 11.45, 11.46, 11.47 and 11.48 of the ToR. Selection of water quality indicators for the impact monitoring during construction phase. The department notes that to determine the existing baseline water quality at each location, a range of in-situ physicochemical parameters is being monitored. Furthermore, a range of contaminants of concern are analysed in the laboratory as per sections 4.2.1.3 and 4.1.2.4 of the draft EIS. Salinity hazard is perceived along the rail alignment are outlined in the Section 5.10 of the Appendix P. Even though a range of risks to the water quality during construction has been identified in the draft EIS, appropriate and suitable water quality indicators that would assist in maintaining/ or improving the quality of the water at various stream crossing has not been addressed in the Section 7.2. Proposed Mitigation measures of the draft EIS. The department notes the draft EIS simply commits to monitor a broader suite of water quality indicators before construction. However, it refrains from putting forward a robust water quality monitoring strategy during the relatively high-risk construction phase. Depending on the operations, treatment, and discharge of wastewater to the water bodies, monitoring of hydrocarbons in the discharged waters may also be required. The department also recommends monitoring some basic metals/metalloids in the receiving waters. Total and dissolved concentrations of metals/metalloids may be required to assess the potential Project impacts on environmental values, including aquatic ecosystems, stock watering, drinking water and recreational values.	In accordance with the requirements of Section 11.41, 11.42, 11.43, 11.45, 11.46, 11.47 and 11.8 of the ToR the draft EIS should adequately assess potential Project impacts on environmental values, including but not limited to, aquatic ecosystems, stock watering, drinking water and recreational values, and propose effective mitigation and management measures, as required. The draft EIS should describe a robust water quality monitoring strategy and consider physicochemical water quality indicators including, but not limited to: - electrical conductivity, dissolved oxygen turbidity/ total suspended solids, temperature, and pH - a metal/ metalloid monitoring strategy. Metals/ metalloid monitored during baseline water quality monitoring should be included for potential water quality impacts during construction phase - potentially nutrient fractions such as total nitrogen total phosphorus, ammonia, and NOx- potentially hydrocarbons.	ARTC has commenced a surface water monitoring program (equivalent to a REMP) for the Project (Section 13.6.3 of Chapter 13: Surface water). This Program consists of baseline surface water monitoring (commenced to inform the EIS) and construction surface water monitoring. The locations, frequency and parameters of interest for water quality sampling during construction will be subject to confirmation as part of the CEMP, to be reviewed and accepted by the Environmental Monitor. Surface water monitoring locations will be reviewed prior to commencement of construction to ensure that locations of potential impact are appropriately represented in the construction works stage of the surface water monitoring program.	Chapter 13: Surface Water Section 13.6.3
238	238.0016	State Agency	Surface Water	Water quality	Insufficient information is provided in the draft EIS on the environmental values of the receiving waters potentially impacted by Project construction activities, particularly at waterway crossings. In addition to the general information about the Project area environmental values the following key information should be provided in the draft EIS, including but not limited to: - topographical contours at suitable increments, shown with respect to Australian Height Datum - identify the direction(s) of surface water runoff and drainage lines that pass through, or are near, the site and any surface waters potentially impacted by construction activity (including rivers, creeks, wetland or drainage lines) that are within or adjacent to the disturbance site - any existing or proposed water bores or groundwater monitoring wells within or on land adjacent to the site - the location of waste storage and disposal locations, including details of the relevant storage facilities - a detailed description of hydrogeological features of the site which includes details of soil and rock types (including porosity, permeability) and stratigraphy (including faulting and fracture propensity) - identify the environmental values of surface waters on or adjacent to the site and water quality objectives to protect or enhance these values - derive local water quality objectives using Queensland water quality guidelines procedures for deriving regional or sub-regional guidelines for aquatic ecosystem protection in accordance - see requirements of the EPP (Water) - identify all environmental values of potentially affected surface water and groundwaters - provide details of the background quality of surface water, specifically in relation to contaminants of concern from the proposed construction activities - monitoring and reporting requirements.	Identify the environmental values of surface waters on or adjacent to stream crossing sites, and water quality objectives to protect or enhance these values. The draft EIS should provide following detail information at all stream crossing locations including, but not limited to: - topographical contours at suitable increments, shown with respect to Australian Height Datum (AHD) - identify the direction(s) of surface water runoff and drainage lines that pass through, or are near, the crossing sites and any surface waters potentially impacted by construction activity (including rivers, creeks, wetland or drainage lines) that are within or adjacent to the disturbance footprint - any existing or proposed water bores or groundwater monitoring wells within or on land adjacent to the site - the location of waste storage and disposal locations, including details of the relevant storage facilities - a detailed description of hydrogeological features of the site which includes details of soil and rock types (including porosity, permeability) and stratigraphy (including faulting and fracture propensity) - identify the environmental values of surface waters on or adjacent to the site and water quality objectives to protect or enhance these values - derived local water quality objectives using Queensland water quality guidelines procedures for deriving regional or sub-regional guidelines for aquatic ecosystem protection in accordance - see requirements of the EPP (Water) - identify all environmental values of potentially affected surface water and groundwaters - provide details of the background quality of surface water, specifically in relation to contaminants of concern from the proposed construction activities - monitoring and reporting requirements.	The revised draft EIS has been updated to include an additional 12 months of surface water data collected from December 2020 to November 2021, in addition to the data collected from June 2018 to May 2019. These additional data were sufficient to develop interim site-specific WQOs. The data has been re-evaluated and presented in the revised draft EIS in Appendix S: Surface Water Quality Technical Report, Sections 3.1.2 and 5.5, and Chapter 13: Surface Water, Section 13.3.3 and 13.4.5. In addition to extra water quality data, a geomorphological assessment of all water features intersected by the Project has been conducted (Appendix H: Geomorphology Assessment) and site-specific erosion threshold velocities have been derived (Appendix T2: Hydrology and Flooding Technical Report - Volume 2) to better inform the design of infrastructure at watercourse crossing locations. The additional data and assessments conducted since release of the draft EIS have resulted in a more robust assessment of potential impacts to water features, including water quality, throughout the revised draft EIS. Additional details requested by the submission are located in: <ul style="list-style-type: none"> ▶ Appendix B1: Design drawings ▶ Appendix U: Groundwater Technical Report ▶ Appendix G1: Geotechnical Reports - Investigation Results ▶ Appendix G2: Macquarie Geotechnical - Laboratory Results. 	Chapter 13: Surface Water Section 13.3.3 Section 13.4.5 Appendix B1: Design Drawings Appendix G1: Geotechnical Reports - Investigation Results Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix H: Geomorphology Assessment Appendix S: Surface Water Quality Technical Report Section 3.1.2 Section 5.5 Appendix T2: Hydrology and Flooding Technical Report - Volume 2 Appendix U: Groundwater Technical Report
238	238.0017	State Agency	Land Resources		The draft EIS does not adequately address Section 11.150-11.153 of the ToR, particularly regarding the risks associated with the disturbance and excavation of land and disposal of soil, particularly contaminated land and saline soils.	The draft EIS should adequately assess whether land is likely to be contaminated, including risks posed by contamination from past, existing and future land uses. Where assessment determines that some form of site remediation is required, the draft EIS should describe in sufficient detail how the assessment, management and/or remediation would be undertaken in accordance with the contaminated land guidelines. The draft EIS should detail the risks and management of saline soils, particularly in highly salinity/ sodicity areas.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results are presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. ARTC has updated Chapter 9: Land Resources to assess (as much as practicable) potential sources of contaminated land within the Project footprint, including an assessment of whether land is likely to be contaminated, and risks posed by contamination from past, existing and future land uses. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM and also included findings from a limited contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Section 2.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides details on disposal and reuse of soil including contaminated material.	Chapter 9: Land Resources Section 9.4.5 Table 9-15 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2.2 Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix I: EMR Search Certificates and Soil Laboratory Certificates
238	238.0018	State Agency	Land Resources		The draft EIS does not adequately address Section 11.150-11.153 of the ToR, particularly regarding the contaminated land assessment methodology. The draft EIS states that a targeted contaminated land investigation will be undertaken following completion of detailed design, where the Project footprint intersects areas of medium-to-high contamination risk, to determine the occurrence of contaminated soils, the potential for risk to human health and the environment and required management measures. No information is provided in the draft EIS that defines what constitutes a medium or high contamination risk, nor who would be responsible for completing this assessment.	The draft EIS should provide define what constitutes a medium or high contamination risk, and who would be responsible for completing the assessment.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results are presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. The investigation included the identification of potential sources of contamination within the impact assessment area through a desktop assessment (Chapter 9: Land Resources, Section 9.4.5) and also included findings from a limited contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Consistent with the requirements of ASC NEPM, the data quality objectives for contaminated land investigations need to be informed by detailed design information (e.g. proposed future re-use of materials). A contaminated land management strategy for any future assessments is provided in Chapter 9: Land Resources, Section 9.6.2 and Figure 9-24.	Chapter 9: Land Resources Section 9.4.5 Section 9.6.2 Figure 9-24 Table 9-15 Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix I: EMR Search Certificates and Soil Laboratory Certificates
238	238.0019	State Agency	Land Resources		The draft EIS does not adequately address Section 11.150 of the ToR, particularly regarding potential sources of contaminated land within or adjacent to the Project area. EMR/ CLR searches appear to have only been completed on allotments that were identified to have an existing ERA or mining lease. This rationale is erroneous.	The draft EIS should assess all potential sources of contaminated land. The draft EIS ignores the potential for land to be included on the EMR/ CLR for alternative reasons such as: - land subject of a notifiable activity that does not require an ERA and or a mining lease (e.g. service stations) - land that was historically the subject of an ERA/ notifiable activity, however, no longer holds a licence - land that is included on the EMR due to the presence of a hazardous contaminant. Such occurrences are evidenced by EMR searches, provided by Queensland Rail, that identify land in the railway corridor that is currently listed on the EMR for the presence of a hazardous contaminant. Land that is included on the EMR/ CLR must be managed in accordance with the contaminated land provisions described in the EP Act. These requirements, if not properly managed, can cause Project delays and potentially restrict the reuse and disposal of soil (spoil management) and water.	For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results will be presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates. ARTC has updated Chapter 9: Land Resources to assess (as much as practicable) potential sources of contaminated land within the Project footprint, including an assessment of whether land is likely to be contaminated, and risks posed by contamination from past, existing and future land uses. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM and also included findings from a limited contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines. Section 2.2 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides details on disposal and reuse of soil including contaminated material.	Chapter 9: Land Resources Section 9.4.5 Table 9-15 Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2.2 Appendix G2: Macquarie Geotechnical - Laboratory Results Appendix I: EMR Search Certificates and Soil Laboratory Certificates

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0020	State Agency	Land Resources		<p>The draft EIS does not adequately address Section 11.150 of the ToR, particularly regarding potential sources of contaminated land within or adjacent to the Project area. The draft EIS does not include EMR/ CLR searches of the existing railway corridor, based on the rational that railway lines are not listed as a notifiable activity. Rather the Project proposes to use a precautionary approach, whereby land within the rail corridor will be assumed to be contaminated until proven otherwise. It is recognised in the draft EIS that the existing railway corridor is a potential source of contamination, due to the potential for hazardous contaminants being used during the construction and maintenance of the railway. As outlined above, land that is included on the EMR/CLR will be subject to the contaminated land provisions of the EP Act and will likely require further investigation to inform appropriate management and potential reuse options for both water and soil. These additional requirements could impact on the Project's schedule and the spoil management aspects of the Project. The department notes that railway lines in Queensland have been listed on the EMR. Limited information is provided in the draft EIS that details how the precautionary approach would be implemented such as, but not limited to:</p> <ul style="list-style-type: none"> what investigations would be undertaken to inform the contamination status of the land would an intrusive sampling program be required what standard would these investigations be completed too who would complete the investigations. 	<p>The draft EIS must include EMR/ CLR searches of the existing railway corridor due to the potential for hazardous contaminants to have been used during the construction and maintenance of the railway. Land that is included on the EMR/ CLR will be subject to the contaminated land provisions of the EP Act and will likely require further investigation to inform appropriate management and potential reuse options for both water and soil. These additional requirements could impact on the Project's schedule, the spoil management aspects of the Project and consequently should be adequately assessed in the draft EIS.</p>	<p>For completeness, all lots that interface with the Project footprint are being searched on the EMR and CLR (including existing QR corridor properties). Search results will be included in Chapter 9: Land Resources, Table 9-15 and the full results will be presented in Appendix I: EMR Search Certificates and Soil Laboratory Certificates.</p> <p>ARTC has updated Chapter 9: Land Resources to assess (as much as practicable) potential sources of contaminated land within the Project footprint, including an assessment of whether land is likely to be contaminated, and risks posed by contamination from past, existing and future land uses. The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines.</p> <p>Section 2.2 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides details on disposal and reuse of soil including contaminated material.</p>	<p>Chapter 9: Land Resources Table 9-15</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2.2</p> <p>Appendix I: EMR Search Certificates and Soil Laboratory Certificates</p>
238	238.0021	State Agency	Land Resources		<p>The draft EIS does not provide adequate information about the disturbance of existing contaminated land, including historical uses. Limited information has been provided in the draft EIS that outlines what further investigations would be undertaken to identify and manage potential contaminated land, including how these investigations would identify land that may be impacted due to historical use (e.g. historical cattle dip) however may not be listed on the EMR. The draft EIS should describe contaminated soil that is proposed to be reused or managed on site (e.g. encapsulation) and likely require the preparation and submission of a draft Site Management Plan in accordance with the requirements of the EP Act.</p>	<p>The draft EIS should adequately describe what further investigations would be undertaken to identify and manage potential contaminated land, including how these investigations would identify land that may be impacted due to historical use (e.g. historical cattle dip) however may not be listed on the EMR. The draft EIS should describe contaminated soil that is proposed to be reused or managed on site (e.g. encapsulation) and likely require the preparation and submission of a draft Site Management Plan in accordance with the requirements of the EP Act.</p>	<p>ARTC has updated Chapter 9: Land Resources to assess potential sources of contaminated land within the Project footprint, including an assessment of whether land is likely to be contaminated, and risks posed by contamination from past, existing and future land uses.</p> <p>The assessment has included a Preliminary Site Investigation (desktop contaminated land assessment) in accordance with ASC NEPM. The investigation included the identification of potential sources of contamination within the impact assessment area through a desktop assessment (Chapter 9: Land Resources, Section 9.4.5) and also included findings from a preliminary contaminated land investigation completed by Macquarie Geotechnical within the existing Queensland Rail corridor (Chapter 9: Land Resources, Section 9.4.5 and Appendix G2: Macquarie Geotechnical - Laboratory Results). Any future assessment, management and/or remediation would be undertaken in accordance with the contaminated land ASC NEPM guidelines.</p> <p>Consistent with the requirements of ASC NEPM, the data quality objectives for contaminated land investigations need to be informed by detailed design information (e.g. proposed future re-use of materials). A contaminated land management strategy for any future assessments is provided in Chapter 9: Land Resources, Section 9.6.2 and Figure 9-24.</p> <p>Section 2.2 Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides details on disposal and reuse of soil including contaminated material.</p>	<p>Chapter 9: Land Resources Section 9.4.5</p> <p>Section 9.6.2</p> <p>Figure 9-24</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2.2</p> <p>Appendix G2: Macquarie Geotechnical - Laboratory Results</p>
238	238.0022	State Agency	Land Resources		<p>The draft EIS does not adequately address Section 11.152 of the ToR, particularly regarding the management of contaminated land within or adjacent to the Project area. The stockpiling of contaminated material on land that is not contaminated is unlikely to be approved by the department. The movement of contaminated soil (from a site on the EMR) outside of the allotment boundary would require a soil disposal permit. The draft EIS defers the provision of relevant specific information on the construction methodology to the 'detailed design stage'. The draft EIS should include this information to ensure the Project identifies all contaminated land within the Project footprint that will be disturbed by Project activities, including the existing rail corridor. These sites are likely to require specific management actions that are not adequately assessed nor described in the draft EIS. The risks and potential impacts on environmental values should be described. The draft EIS does not adequately address Section 11.150 and 11.153 of the ToR, particularly regarding details and potential impacts, management and decommissioning (if required) of the proposed diesel fuel depots.</p>	<p>The draft EIS should adequately describe the stockpiling of any contaminated material. The draft EIS should describe the movement of contaminated soil (from a site on the EMR) outside of the allotment boundary that would a soil disposal permit. The draft EIS should provide appropriate characterisation of soil across the Project area. It should also provide a suitable contaminated land risk assessment, including an outline of a preliminary contaminated site investigation requirements, including but not limited to, describing suitable management options should contaminated soils be identified or be required for reuse during construction or operations. The draft EIS should provide adequate details on the proposed bulk storage of diesel fuel. The draft EIS states that diesel fuel depots would be located at approximately 20 km intervals along the Project alignment and would provide 40,000L bulk storage of diesel. Fuel storage of this quantity would likely trigger Notifiable Activity 29 (Petroleum product or oil storage) and would require notification (under Section 320 of the EP Act) by the landholder and may result in the land parcel being included on the EMR. The draft EIS should detail what investigations, if any, would be undertaken at the proposed diesel fuel depots following the completion of their use.</p>	<p>Limited contaminated land investigations for the existing QR corridor and soil investigation works for the Border to Gowrie disturbance footprint have been undertaken and incorporated in Chapter 9: Land Resources to inform management of soil. Section 9.6.3 provides mitigation measures around movement of contaminated soil from an EMR listed site and limited investigations have been undertaken within the existing QR corridor (refer Section 9.5 of Chapter 9: Land Resources and Appendix H: Geomorphology Report).</p> <p>Any off-site disposal of contaminated material to a licenced landfill will require a waste classification to be undertaken by a suitable qualified person and a landfill acceptance letter to be obtained prior to disposal. A soil disposal permit from DESI will also be required for the transportation and disposal of contaminated soil from a lot listed on the EMR/ CLR by a licenced service provider to an appropriately licenced facility/ location. Soil located on a lot listed on the EMR/ CLR that is not contaminated, does not require a soil disposal permit to be moved to another lot (refer Section 9.5 of Chapter 9: Land Resources).</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan, Section 2.2 and 2.3 outlines that the limited contaminated land investigation reported contaminant concentrations below threshold values for the most sensitive (residential) land use setting. The materials tested have been interpreted as nominally "clean" and suitable for re-use within the earthworks depending on its physical characteristics (i.e. Type A to E material). Should contaminated soils be encountered during execution of the works, it has been assumed that the volumes will be small and that they will be managed in accordance with the soil management hierarchy. Contaminated materials will be separated, stockpiled and banded or contained, in accordance with the Soil Management Plan (see Section 2.2, Appendix AB: Draft Earthworks Strategy and Soil Management Plan).</p> <p>Further investigations to determine the location and extent of contamination is required. Sampling, testing and compliance of materials will be undertaken in accordance with the appropriate contamination methods and criteria, e.g. National Environment Protection (Assessment of Site Contamination) Measure 1999 guidelines. Where appropriate, the feasibility of encapsulating contaminated material within zoned embankments will be investigated (see Section 2.3, Appendix AB: Earthworks Strategy and Draft Soil Management Plan).</p> <p>Waste storage areas will be located and managed to ensure that risks to the environment are avoided or minimised. As required, designated areas will be made available for the storage of general waste and contaminated material (refer Section 22.4 Section 22.6.2 of Chapter 22: Waste and Resource Management).</p> <p>Section 2.2 of Appendix AB: Earthworks Strategy and Draft Soil Management Plan provides details on disposal and reuse of soil including contaminated material.</p>	<p>Chapter 9: Land Resources Section 9.5</p> <p>Section 9.6.3</p> <p>Chapter 22: Waste and Resource Management Section 22.6.2</p> <p>Appendix AB: Earthworks Strategy and Draft Soil Management Plan Section 2.2</p> <p>Section 2.3</p> <p>Appendix H: Geomorphology Assessment</p>
238	238.0023	State Agency	Groundwater	Baseline/background sampling	<p>The draft EIS does not outline the methodology used to collect the initial groundwater samples for analytical testing. Furthermore, the draft EIS should include that groundwater sampling was undertaken in accordance with approved departmental and industry best practice guidelines.</p>	<p>The draft EIS should provide sufficient information to confirm that groundwater sampling was undertaken in accordance with department's Monitoring and Sampling Manual - Environmental Protection (Water) Policy 2009 and industry best practice guidelines.</p>	<p>Section 15.7.3 (Chapter 15: Groundwater) does include the guideline and others adopted for monitoring. Site-based groundwater monitoring events are on hold until the detailed design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (Chapter 15: Groundwater, Section 15.4.4). The baseline groundwater monitoring and sampling is being conducted in accordance with the Monitoring and Sampling Manual (Department of Environment & Science, 2018) and Groundwater Sampling and Analysis: A Field Guide (Sundaram et al., 2009).</p> <p>Section 15.7.3 (Chapter 15: Groundwater) does include the guideline and others adopted for monitoring.</p>	<p>Chapter 15: Groundwater Section 15.4.4</p> <p>Section 15.7.3</p>
238	238.0024	State Agency	Groundwater		<p>The department notes that extraction of groundwater (e.g. dewatering, seepage) may occur during the construction and operational stage of the proposed Project. The draft EIS does not provide a suitable risk assessment of potential groundwater impacts from contaminated soil. The draft EIS did not identify nor assess if groundwater, from land that could be potentially contaminated, would be extracted. If so, what groundwater investigations would be undertaken to confirm the absence/ presence of groundwater contamination at these locations and what management controls would be used to prevent environmental harm.</p>	<p>The extraction of groundwater (e.g. dewatering, seepage) would likely occur during the construction and operational phase of the Project. The draft EIS should detail if groundwater, from land that could be potentially contaminated, would be extracted. If so, what groundwater investigations would be undertaken to confirm the absence/ presence of groundwater contamination at these locations and what management controls would be used to prevent environmental harm.</p>	<p>Existing contamination in the form of cattle dips, waste facilities, etc encountered within the rail corridor will be removed and the sites remediated during construction such that these sources of contamination will not be present to contaminate groundwater where groundwater will be extracted.</p> <p>As part of ARTC's construction water planning process, construction water procurement studies are ongoing including options analysis. The extraction of groundwater is not a preferred construction water source for the Project. If groundwater is to be sourced for construction water, trading or purchasing of existing allocated entitlements will be pursued in the first instance. Due diligence will be conducted prior, to ensure suitable quality and prevent use of impacted groundwater. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements Report.</p>	<p>Appendix B5: Construction Water Requirements</p>
238	238.0025	State Agency	Groundwater	Baseline/background sampling	<p>The draft EIS contaminated land and water quality risk assessment is inadequate. The draft EIS does not provide sufficient detail on baseline groundwater quality.</p>	<p>The draft EIS should assess the potential for existing groundwater contamination to be present in the Project area and the implications for the Project. The draft EIS should provide further information that details how many groundwater sampling events and over what timeframe sampling was undertaken to inform baseline groundwater quality. The draft EIS should confirm that groundwater data has been collected in accordance with approved sampling and analysis methods. Groundwater trigger values should be derived in accordance with the department's Guideline -Using monitoring data to assess groundwater quality and potential environmental impacts (DES 2021).</p>	<p>Potential for groundwater drawdown resulting from seepage and impacts to groundwater quality relating to contamination events are discussed in Section 15.6, Chapter 15: Groundwater of the revised draft EIS. Potential mitigation measures relating to groundwater seepage and groundwater quality are presented in Section 15.7.1 and Table 15-20.</p> <p>Consideration of potential for groundwater contamination has been incorporated in the Tier 1 preliminary contamination assessment in Chapter 9: Land Resources, Section 9.4.1, including a site history study and limited soil and groundwater sampling and analysis. The sites subject to potentially contaminating activities identified as part of the Tier 1 preliminary contamination assessment have been reviewed in the context of potential for groundwater contamination and potential for extraction of groundwater as part of the Project (i.e. groundwater seepage into deep cuts) in that area. Where areas with potential for groundwater contamination have been identified, the location of potential contamination in relation to deep cuts with potential to intercept the groundwater table, was reviewed. The revised draft EIS was updated to reflect the findings of the contamination assessment. See Chapter 15: Groundwater, Section 15.6.3 and Appendix U: Groundwater Technical Report, Section 4.7.3. Further, analysis of a broad suite of contaminants has been included as part of the baseline groundwater monitoring program and the GMMP. Section 15.7.4 and Table 15-20 of the revised draft EIS was updated to detail the revised baseline monitoring program.</p>	<p>Chapter 15: Groundwater Section 15.6.3</p> <p>Section 15.7.1</p> <p>Section 15.7.4</p> <p>Table 15-20</p> <p>Appendix U: Groundwater Technical Report Section 4.7.3</p> <p>Chapter 9: Land Resources Section 9.4.1</p>
238	238.0026	State Agency	Air Quality		<p>The draft EIS does provide sufficient information regarding Project's contribution to Greenhouse Gas (GHG) emissions. The Queensland Government has committed to achieving zero net emissions by 2050 with an interim target of 30% reduction on 2005 levels by 2030.</p>	<p>The draft EIS should provide adequate information to assess the Project's impact on the alignment with the states climate targets. See further specific comments below.</p> <ul style="list-style-type: none"> The Project proponent broadly refers to potential sources of emission, but does not provide specific information on Projected emissions data The draft EIS, as a minimum, should provide an inventory of Projected annual emissions for each relevant greenhouse gas, with total emissions expressed in Carbon Dioxide equivalent terms. 	<p>ARTC will provide a long-haul freight solution that is time and cost competitive when compared to road freight. Consequently, Inland Rail will replace some of the long-haul road freight tasks, resulting in reduced road congestion and fewer vehicular greenhouse gas emissions. Greenhouse gas emissions from the operation of freight rail have not been estimated at this point in time. However, ARTC has estimated that transportation of freight on Inland Rail is expected to use approximately one-third of the fuel when compared to transportation of the same volume of freight via existing road routes. Reduction in fuel consumption, and the resulting reduction in greenhouse gas emissions, will aid the achievement of the State's climate targets.</p> <p>Chapter 7: Sustainability, Section 7.3 reports that Greenhouse gas emissions have been estimated for the construction of the Project and regular maintenance of the Project during operation:</p> <ul style="list-style-type: none"> Greenhouse gas emissions during the construction works stage (in total) are estimated to be in the order of 474,300 tonnes of carbon dioxide equivalent (t CO₂-e), including emissions generated by land use change. The largest contributors to greenhouse gas emissions during the construction works stage are earthworks activity (approximately 45%) and land use change (approximately 25 per cent). Emissions resulting from maintenance activities during the operations stage are estimated to be in the order of 20,700 t CO₂-e annually. The largest contributors to greenhouse gas emissions for maintenance activities are earthworks activity (approximately 69 per cent) and vehicle inspections (approximately 20 per cent). <p>The Project commitments in respect of greenhouse gas emissions are reported in Chapter 12: Air Quality, Section 12.6.3 (Table 12-36).</p>	<p>Chapter 7: Sustainability Section 7.3</p> <p>Chapter 12: Air Quality Section 12.6.3</p> <p>Table 12-36</p>
238	238.0027	State Agency	Hazard and Risk		<p>The ToR requires the revised draft EIS to assess the potential risks to people and property associated with the Project. The revised draft EIS does not provide information on Climate Change Risk Assessments that have been undertaken, if any. The revised draft EIS does not provide any analysis on climate transition risks (i.e. potential of stranded assets).</p>	<p>The revised draft EIS should include:</p> <ul style="list-style-type: none"> information of any climate risk assessment undertaken, including the use of specific methodologies or risk assessments tools (i.e., the IS rating tool, Infrastructure Australia Guideline or any other available climate risk tools) information on climate risk reduction and management actions included in the Project plan consideration and analysis of assets losing value or becoming stranded due to inability to adapt to global decarbonisation and market demands. <p>The revised draft EIS should also consider the potential implications of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) (see tsb-tcfd.org/); and advice on climate risk disclosure from the Australian Securities and Investments Commission (see asic.gov.au/regulatory-resources/corporate-governance/corporate-governance-articles/disclosing-climate-risk/).</p>	<p>The Inland Rail Program is being progressed as a registered Project with the Infrastructure Sustainability Council of Australia, with the objective of achieving a delivering performance that is equivalent to the 'Excellent' level as measured by the IS v1.2 rating tool. 'Excellent' rating of performance against Version 1.2 of the Infrastructure Sustainability Rating Scheme The climate adaptation requirements of Version 1.2 of the Infrastructure Sustainability Rating Scheme are as follows:</p> <ul style="list-style-type: none"> ClI-1: Climate Change Risk Assessment which aims to reward the assessment of climate change risks. ClI-2: Adaptation measures which aims to reward the assessment and implementation of climate change adaptation measures. <p>Future climatic scenarios that have been considered in developing the revised draft EIS are discussed in Section 21.6.2 of Chapter 21: Hazard and Risk. Potential impacts to the Project as a consequence of climate change are also discussed in the same section.</p> <p>Details on how the revised reference design has been developed to account for climate change Projections are provided in Section 7.5.2 (Table 7.4) of Chapter 7: Sustainability.</p>	<p>Chapter 7: Sustainability Section 7.5.2</p> <p>Table 7.4</p> <p>Chapter 21: Hazard and Risk Section 21.6.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0028	State Agency	Air Quality		The draft EIS lacks comprehensive information on mitigation measures proponent would use and how these measures would minimise emissions.	<p>The draft EIS should assess the potential impacts of the Project on the state and national greenhouse gas inventories and propose greenhouse gas abatement measures, including:</p> <ul style="list-style-type: none"> a description of the proposed measures (alternatives and preferred) to avoid and/or minimise greenhouse gas emissions directly resulting from activities of the Project, including such activities as transportation of products and consumables, and energy use by the Project an assessment of how the preferred measures minimise emissions and achieve energy efficiency a comparison of the preferred measures for emission controls and energy consumption with best practice environmental management in the relevant sector of industry a description of the proposed plan to abate fugitive emissions, including technologies and methods to be used and amount of emissions expected to be abated - a description of proposed plan to purchase carbon credits to offset yearly emissions including the amount of credits, type of credit (i.e., Australian Carbon Credit Units), planned time frames for purchase of the credits a description of any identified opportunities and proposed plans for further offsetting GHG emissions through indirect means. <p>The draft EIS should include a specific module to address greenhouse abatement in any appropriate management plan. That module should include:</p> <ul style="list-style-type: none"> commitments to the abatement of greenhouse gas emissions from the Project with details of the intended objectives, measures and performance standards to avoid, minimise and control emissions periodic energy audits with a view to progressively improving energy efficiency - a process for regularly reviewing new technologies to identify opportunities to further reduce emissions and energy use, consistent with best practice environmental management any voluntary initiatives or research into reducing the lifecycle and embodied energy the Project's processes or products opportunities to reduce greenhouse emissions through renewable energy use commitments to monitor, audit and report on GHG emissions from all relevant activities and the success of abatement and offsetting measures. 	<p>Mitigation measures for the Project for air quality and greenhouse gas are presented in Chapter 12: Air Quality, Section 12.6. Greenhouse gas mitigation measures included in Section 12.6.3 (Table 12-36) include the following:</p> <ul style="list-style-type: none"> Procure energy efficient construction equipment, when appropriate and subject to availability Minimise waste from construction by procuring pre-fabricated products, where possible Where possible, use low-energy intensity materials instead of high-energy intensity building materials. <p>A number of the mitigation measures recommended for air quality are also applicable for greenhouse gas emissions. For example, the design of the Project has considered the location of construction areas and haul routes to reduce vehicular emissions (reduced diesel consumption), and the design of the rail alignment to avoid steep terrain and reduce locomotive emissions (diesel consumption).</p> <p>Additional mitigation measures and commitments relevant to reducing greenhouse gas emissions have been added to Chapter 12: Air Quality, Section 12.6.</p> <p>The Terms of Reference for the Project does not include reference to greenhouse gas emissions and therefore a greenhouse gas emissions inventory is not included in the EIS. However, additional greenhouse gas abatement measures have been recommended for the Project in Chapter 12: Air Quality Section, 12.6 and Table 12-36 to minimise greenhouse gas emissions. The additional mitigation measures include the following:</p> <p>Construction works stage:</p> <ul style="list-style-type: none"> Maintain construction equipment and vehicles to ensure engine efficiency and minimise fuel use and resulting emissions Procure energy efficient construction equipment, when appropriate and subject to availability Minimise waste from construction by procuring pre-fabricated products, where possible Where possible, will use low energy intensity materials instead of high energy intensity building materials Reduce third party (Scope 3) emissions by sourcing imported materials from local areas, minimising travel distances Reduce travel distances and fuel consumption onsite by planning construction haul roads and staging of related activities efficiently Minimise as much as possible the idling time of plant and equipment, and switch engines off when not in use Minimise the extent of vegetation cleared during construction due to the clearing limits required, and Recycle any waste produced where feasible. <p>Operations stage:</p> <ul style="list-style-type: none"> Investigate opportunities for reducing fuel consumption, e.g. through the use of electric vehicles Maintain support vehicles and equipment to increase engine efficiency and minimise fuel use and resulting emissions Plan and stage maintenance activities considering efficiency and fuel consumption Investigate opportunities to reduce greenhouse emissions through the use of renewable energy Regular auditing of operational performance with a view to progressively improving efficiency and reducing emissions through reduced fuel consumptions (e.g. reduced train idling time at crossing loops) Periodic energy audits with a view to progressively improving energy efficiency Monitor, audit and report on greenhouse gas emissions from relevant significant activities and emission sources, and the success of abatement measures Develop a process for regularly reviewing new technologies to identify opportunities to further reduce emissions and energy use, consistent with best-practice environmental management. <p>Reduction of greenhouse gas emissions is a major benefit of the Project. It is estimated that the transportation of freight via the Inland Rail Program is expected to use approximately one-third of the fuel when compared to transportation of the same volume of freight via existing road routes. Reduction in fuel usage for freight will result in an overall reduction in greenhouse gas emissions.</p>	Chapter 12: Air Quality Section 12.6 Table 12-36
238	238.0029	State Agency	Hazard and Risk		Climate Risk Management of the revised draft EIS does not provide any information on the climate tools used to predict climate hazards.	<p>The revised draft EIS should describe and assess the potential impacts of climate hazards on the Project. The risk assessment process should be consistent with ISO 31000 (risk management). There are tools and resources available that can assist ARTC engaged with stakeholders to conduct an appropriate risk assessment process (e.g. Climate Compass at environment.gov.au/climatechange/adaptation/publications/climate-compass-climate-risk-management-framework)</p> <p>The assessments of future climate risk should employ the most relevant climate Projection datasets. The Queensland Government has developed new dynamically downscaled high resolution climate Projection data for Queensland (~10 km grid). The Queensland Future Climate Dashboard provides a map interface to the Projection data allowing users to explore, visualise and download the new Queensland high-resolution climate Projection data. The data available via the Dashboard covers more than mean climate data, and includes indices for heatwaves, extreme temperatures, extreme precipitation, drought and flood.</p>	<p>Future climatic scenarios that have been considered in developing the revised draft EIS are discussed in Section 21.6.2 of Chapter 21: Hazard and Risk. Potential impacts to the Project as a consequence of climate change are also discussed in the same section.</p> <p>Details on how the revised reference design has been developed to account for climate change Projections are provided in Section 7.5.2 (Table 7.4) of Chapter 7: Sustainability.</p>	Chapter 7: Sustainability Section 7.5.2 Table 7.4 Chapter 21: Hazard and Risk Section 21.6.2
238	238.0031	State Agency	Cultural Heritage	Non-Indigenous cultural heritage	The non-Indigenous cultural heritage assessment is adequate.	<p>The draft EIS non-indigenous heritage assessment recommendations are supported. The establishment of cultural Heritage Sub-plan is supported to manage potentially significant artefact finds pursuant to Section 89 of the Queensland Heritage Act 1992, prior to construction and operational activities commencing.</p>	<p>ARTC acknowledges the adequacy of the non-indigenous cultural heritage assessment, as stated by DES in the submission dated 4 May 2021.</p>	N/A
238	238.0032	State Agency	Air Quality		The air quality assessment is adequate.	<p>The draft has been prepared in accordance with the requirements of the ToR and provides sufficient information to satisfy the departments interests (other than for the required prescribed ERA components). The cumulative air quality assessment predicted a singular exceedance for 24-hour average PM10 (50.1 micrograms per cubic metre compared to the EPP (Air) objective of 50), at Receptor R186 when assessed on a cumulative impact basis (see Chapter 12, page 11-76, Table 11.33). R186 is between the proposed rail corridor and the existing Commodore coal mine. ARTC has stated that ambient air quality monitoring would be undertaken close to the location. Information from the further monitoring would be used to refine ground-level impact assessment. The draft EIS states that this information would provide during the detailed design stage. All other Project-related air contaminants were predicted to comply with relevant assessment criteria. Risk to water tank drinking water was also assessed, with predicted levels of contaminants shown to comply with relevant drinking water criteria. Mitigation measures to ensure air quality values were provided in the draft EIS. These are considered to represent industry standard measures. Should the proposed Project be approved, EA conditions for Air could be drawn from the departments Model/ Common Conditions. Notwithstanding the above air quality assessment comments, if triggered, an air quality assessment would be required for the assessment of ERA 15 Fuel burning.</p>	<p>It is noted that Queensland Government's Department of Environment and Science advises the air quality assessment within the draft EIS is adequate.</p> <p>Ambient air quality monitoring has been undertaken at 524 Millmerran Inglewood Road, Millmerran, referred to in the revised air quality assessment as the Millmerran Air Quality Monitoring Station (Millmerran AQMS) (Chapter 12: Air Quality, Section 12.4.2). Air quality monitoring data obtained has been used in the revised air quality assessment for the Project to refine the ground-level impact assessment. Monitoring data is presented in Chapter 12: Air Quality and Appendix R: Air Quality Technical Report. Section 4.2 of Appendix R: Air Quality Technical Report presents the monitoring data in detail. As discussed in Section 4.2 of Appendix R: Air Quality Technical Report, measured concentrations of particulate matter less than 10 micrometres (PM10) and particulate matter less than 2.5 micrometres (PM2.5) were typically well below air quality goals for these species, with the exception of during exceptional regional air quality events.</p> <p>Detailed discussion of the approach used to consider the Millmerran AQMS data and the refinements to the assessment of Commodore Mine is provided in Section 12.4.2 of Chapter 12: Air Quality.</p> <p>Modelling results for receptor R435 (previously R186) from the revised assessment have been provided in Appendix F of Appendix R: Air Quality Technical Report.</p> <p>Using the monitoring data obtained from the Millmerran AQMS, the revised air quality assessment did not predict exceedances of air quality goals at any sensitive receptors, including receptor R435 (previously R186). Based on the results of the revised air quality assessment, significant impacts to air quality are not expected as a result of the Project.</p>	Chapter 12: Air Quality Section 12.4.2 Appendix R: Air Quality Technical Report Section 4.2 Appendix F
238	238.0033	State Agency	Flora and Fauna		The draft EIS does not adequately address the requirements of Section 7.2 and 9.5 of the ToR. The draft EIS identifies several permits and management plans that may be required by the proposed Project under the NC Act. The draft EIS does not provide sufficient information to enable the department to decide if an approval should be granted. The draft EIS does not provide sufficient site-specific Project information, including permission locations, for which species or actual extent of disturbance/ clearing required. Detailed site-specific flora and fauna surveys, ecological investigations and assessments have not been provided in the draft EIS. Adequate supporting information and assessment information is required on environmental values, avoidance measures, potential impacts, the effectiveness of proposed mitigation and management measures to enable the department to make any suitable recommendation to the Coordinator-General on the acceptability of Project impacts.	<p>Provide information to demonstrate that all reasonable measures have been taken to avoid all known and predicted impacts to flora and fauna values. If Project impacts cannot be avoided, provide sufficient detailed information and assessment in accordance with the ToR requirements. This information needs to be sufficient to allow the assessment of all relevant potential impacts and the effectiveness of proposed mitigation measures for all NC Act permissions and management plans required by the proposed Project. While it may be appropriate to provide the detail in Chapter 11, an overview/ summary of site-specific impacts and the effectiveness of proposed mitigation and management measures should be provided in Chapter 3 for clarity and further site-specific information in the flora and fauna chapter, and in the offsets chapter, if required.</p>	<p>A detailed assessment of Potential Impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Some examples of identified impacts include Habitat loss and degradation, Displacement of threatened species, Barrier/Edge effects, Lighting, Dust, Erosion, Contamination and more.</p> <p>Additional ecology surveys were also undertaken by Cardno (2021) and AusEcology (2022), which ground-truthed the Project footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction works stage of the Project. Results of these surveys including locations and quantification of ecological values, including threatened species, is provided in the revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Mitigation measures have been considered to reduce the potential impacts on flora and fauna within the Project alignment. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction activities and early works stage, construction works and operations stages.</p> <p>Chapter 24: Draft Outline Environmental Management Plan provides further context and the framework for implementation of these proposed mitigation and management measures.</p>	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0034	State Agency	Flora and Fauna		<p>The draft EIS does not adequately address the requirements of Section 7.2 and 9.5 of the ToR. The draft EIS should consider the following general regulatory, protected plant and animal authority requirements under the NC Act. Relevant matters and assessment information should be included in the draft EIS. Much of Queensland's native wildlife is protected by legislation to ensure its survival and to protect biodiversity. All native birds, reptiles, mammals and amphibians are protected in Queensland, along with a limited range of invertebrates and fish. The breeding places of some animal species are also protected from being tampered with or destroyed. All plants that are indigenous to Australia are protected. The type of approvals required depends upon several things, including:</p> <ul style="list-style-type: none"> ▶ The nature and purpose of your proposed activity ▶ The location and tenure of the area in which you intend to undertake your activity ▶ The species of wildlife concerned. <p>The department is afforded a statutory 40 business day (bd) timeframe to decide on an application for a permit or licence associated with protected plants and animals. Should an application contain insufficient information, the department may request further information from the proponent within 20 bd of receiving the application. When the department requests further information the proponent is afforded 20 bd to respond to the request. If a response is not received within 20 bd, the application is deemed withdrawn. If a response is received within 20 bd the department is afforded an additional 40 bd to decide the application. ARTC is encouraged to factor these timeframes in when undertaking Project planning.</p>	<p>Unless a person is otherwise exempt, an approval would be required from the department to conduct an activity involving the take, keep and use of a protected plant or animal. Clearing of Protected Plants All plants indigenous to Australia are considered protected plants in Queensland. When protected plants are in the wild, the departments protected plant framework captures clearing and harvesting and growing activities that pose a significant risk to plant biodiversity. For clearing protected plants, a flora survey trigger map will identify if an area to be cleared is within a 'high risk area' (where threatened plants or near threatened plants are known or likely to be present). When a non-exempt clearing activity is proposed within a high-risk area, the proponent is required to complete a flora survey of the 'clearing impact area' (the area to be cleared plus a buffer 100 m in width), prior to commencement of clearing. A flora survey is also required if the area to be cleared is outside of a high risk area and the proponent has knowledge of the presence of threatened plants or near threatened plants. If the flora survey identifies that threatened plants or near threatened plants do not exist within the clearing impact area, the proponent can submit a copy of the flora survey report to the department to be eligible for an exemption from the requirement for a clearing permit. Where threatened plants or near threatened plants are present in the clearing impact area and cannot be avoided, a clearing permit will be required. The application will need to include specific information including impact management strategies that will be assessed against the departments Protected Plants Assessment Guideline. Useful references and information for clearing of protected plants can be found at: qld.gov.au/environment/plants-animals/plants/protected-plants/clearing</p> <p>Flying-foxes Queensland's flying-fox management framework seeks to strike a balance between the need to respond to the impacts flying-foxes have on residents and business and the need to conserve flying-fox species in part due to the role they play as essential pollinators. Flying-fox roosts are protected from being destroyed and flying-foxes occupying a roost are protected from being disturbed or dispersed. Management activities including roost destruction and disturbance or dispersal of flying-foxes while occupying a roost will usually require a Flying-fox Roost Management Permit (FFRMP) from the department. Local Governments have a right to manage flying-foxes and their roosts within designated urban areas in a non-lethal code compliant way without a FFRMP. Local Government will require a FFRMP when roost management is to be undertaken at a non-urban roost or the management actions at an urban roost are not code compliant. All persons undertaking low impact activities such as weeding, mulching, mowing or minor tree trimming in or adjacent to roosts are exempt from requiring a FFRMP when the activity is undertaken in a code compliant way. Useful references and information for flying-fox management can be found at: environment.des.qld.gov.au/wildlife/animals/living-with/bats/flying-foxes/roost-management</p> <p>Animal Breeding Places The breeding places of protected animals are protected from being tampered with or destroyed. Animal breeding places include obvious structures such as bird nests and tree hollows, as well as more cryptic places such as amphibian or reptile habitat where breeding takes place. An approved Species Management Program (SMP) is required to tamper or destroy an animal breeding place. One of two SMPs are available, depending on the identified protected animals. The SMP low risk of impacts relates to protected animals classed as least concern and where the impacts are unlikely to affect the broader population. The SMP high risk of impacts relates to protected animals where the broader population is at a greater risk from impacts and includes least concern wildlife that are colonial breeders and wildlife prescribed as extinct in the wild, critically endangered, endangered, vulnerable, near threatened, or a special least concern animal. An application for an SMP would typically:</p> <ul style="list-style-type: none"> ▶ assess the threats to native animal breeding places resulting from a planned activity ▶ incorporate management actions that will avoid or minimise both the immediate and the long-term impact of removing or altering an animal breeding place ▶ set monitoring and reporting requirements that demonstrate the management actions in the SMP are effectively implemented and produce the intended results. Useful references and information regarding SMPs can be found at: environment.des.qld.gov.au/licences-permits/plants-animals/species-managementprogram <p>Relocation of Protected Animals All animals indigenous to Australia are protected in Queensland. An unauthorised person must not take (e.g. kill, wound, injure, trap) or keep (e.g. have in one's possession) a protected animal. The department licences wildlife spotter catchers under a Rehabilitation Permit and their role it is to catch and then relocate animals to suitable habitat, prior to the animals existing habitat being destroyed. While engaging a licenced wildlife spotter catcher is not a mandatory requirement for construction and development activities, it has become an industry standard and is one way that those undertaking development activities can demonstrate they have made a reasonable attempt to avoid taking wildlife in the event injuries or mortalities occur. Further information about Rehabilitation Permits can be found here: environment.des.qld.gov.au/licences-permits/plants-animals/rehabilitation/rescue-and-rehabilitation</p> <p>Wildlife Research Often construction and development activities require ecological surveys to support approval processes and present an opportunity to undertake scientific research involving wildlife populations or management techniques. Ecological surveys or research activities involving invasive techniques such as animal trapping, spotlighting, handling, luring, fitting of tracking devices and tagging or banding can be accommodated under a Research Permit. Research Permit proponents need to be associated with a scientific research institution or have appropriate qualifications in the area of study. Further information about wildlife research can be found here: qld.gov.au/environment/plants-animals/wildlife-permits/science-education</p> 	<p>The revised draft EIS does address Section 7.2 and 9.5 of the ToR (Appendix A2: Terms of Reference Compliance Table) by assessing the requirements of the NC Act and the approvals required. Chapter 11: Flora and Fauna and Appendix N: Draft Fauna Management Plan outline the applicability of the NC Act and the permits and management plans that may be required for the Project including; Wildlife Movement Permits, Clearing Permits, Rehabilitation Permits, Damage Mitigation Permits and Species management plan.</p>	<p>Chapter 11: Flora and Fauna Section 11.2 Appendix N: Draft Fauna Management Plan Section 3 Appendix A2: Terms of Reference Cross Reference Table</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0035	State Agency	Flora and Fauna		The draft EIS does not adequately address the requirements of Section 10.10 and 11.48 and 11.101 of the ToR. The draft EIS states that borrow pits are not included in the Project footprint as approval to establish and use borrow pits would be sought separately to the EIS approvals process. The draft EIS should identify borrow pit locations and quantity of material to be used in construction. The department notes that borrow pits are typically located close or adjacent to construction sites and would likely provide the Project with building materials such as gravel and soil. New borrow pits may vary in size depending on the quantity of material taken. Borrow pits disturbed land (including any new access tracks), typically impact vegetation communities, wildlife habitats, surface water and groundwater and require site clearing and rehabilitation to a safe, stable and non-polluting condition. The draft EIS should detail all potential impacts, rehabilitation methodologies and techniques, including monitoring to ensure rehabilitation milestones and management are being achieved. Site rehabilitation should ensure that all disturbed areas caused by construction and maintenance activities are restored, leaving a stable environment that is conducive to the establishment of landscapes characteristic to the local area.	The draft EIS should identify all borrow pit locations, including access tracks and the quantity and characterisation of the material to be used in construction. Update cut/ fill mass balance calculations accordingly. The draft EIS should identify site-specific environmental values, potential Project impacts, proposed mitigation and management measures, including site rehabilitation, monitoring and offsets (if required) associated with borrow pit excavations activities. In accordance with the ToR requirements, update the relevant draft EIS chapters accordingly.	Chapter 5: Project Description, Table 5-29 has been updated to identify borrow pit locations and include access track information. Details regarding cut and fill masses are outlined in Table 5-30. Proposed mitigation and management measures associated with borrow pit activities are outlined in Appendix AD: Borrow Pits Preliminary Environmental Assessment, Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report.	Chapter 5: Project Description Table 5-29 Table 5-30 Chapter 11: Flora and Fauna Appendix AD: Borrow Pits Preliminary Environmental Assessment Appendix L: Terrestrial and Aquatic Ecology Technical Report
238	238.0036	State Agency	Flora and Fauna		The draft EIS uses ambiguous phrases such as: 'as appropriate', 'as far as practicable', 'may occur', 'where possible', 'as soon as possible', 'where practically possible', 'where practical', 'when finalised' and 'when known' and 'maybe'. The draft EIS should specify when, where and why the actions associated with these statements will occur. The draft EIS should discuss the consequence or potential environmental risk if the action does not occur. The draft EIS should clearly describe the proposed activity and assess the potential impacts, environmental risks and propose effective mitigation and management measures of the consequential action.	The draft EIS should specify when, where and why the actions associated with these statements will occur (e.g. as appropriate, as far as practicable, may occur, where possible, as soon as possible, where practically possible, where practical, when finalised and when known and maybe). The draft EIS should describe the consequence or potential environmental risk if the action does not occur, and the consequential action that would be required.	The revised draft EIS included updating the Potential Impacts and Mitigation Measures for the Project in Chapter 11: Flora and Fauna to describe the consequence or potential environmental risks related to Project activities. A detailed assessment on Potential Impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project alignment. These are outlined in Chapter 11: Flora and Fauna with a detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction and construction, and operations stages outlined in Chapter 11: Flora and Fauna. The Chapter also provides a summary of the auditing, monitoring and reporting requirements for the Project. The Construction Environmental Management Plan (CEMP) will establish the procedures, timeframes, measurable performance objectives, responsibilities for monitoring the success of rehabilitation and/or reinstatement/ stabilisation areas and proposed corrective actions if the outcomes of rehabilitation and/or reinstatement/ stabilisation are not achieved. These are further detailed in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan
238	238.0037	State Agency	Flora and Fauna		The draft EIS should accurately describe the actual extent of TECs potentially impacted by Project by undertaking the required field investigations in accordance with the requirements of Section 11.2, 11.25-11.32, 11.95 of the ToR. Update the RE mapping, as required. Revised the impact assessment based on the extent of verified investigation and mapping within the Project area. The draft EIS should provide the required comprehensive and targeted ecological field surveys along the Project footprint in accordance with the ToR requirements to determine the actual occurrence and extent of, for example, TECs (and any associated fauna). The draft EIS should provide an adequate assessment of the actual extent and quality of habitat and identify any new populations within the Project area.	The draft EIS primarily relies on desktop vegetation (RE) mapping. The draft EIS does note the limitations in the mapping. Consequently, the draft EIS does not provide that verified extent of TECs (and any impacted fauna) nor provide the required impact assessment based on site-specific surveys and investigations. Consistent with the Project's EIS methodology, a comprehensive and targeted field surveys are required to identify the actual occurrence and extent of, for example, TECs within the Project area. Furthermore, those surveys would provide a suitable basis for impact assessment, describe the extent and quality of habitat, and identify any new populations.	Since the draft Environmental Impact Statement (EIS) was released for public submission, ARTC has undertaken additional ecology surveys which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods of these survey efforts are available in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix A Appendix O: Matters of National Environmental Significance Appendix A
238	238.0038	State Agency	Flora and Fauna	Koala	The draft EIS does not adequately assess the effectiveness of proposed mitigation and management measures. The draft EIS simply describes the theory behind evaluating the effectiveness of proposed mitigation measures, rather than evaluating and providing an evidence-based assessment of the site-specific mitigation or management measure applicable to each location.	The draft EIS should evaluate and provide the required evidence-based information to support the assessment, location, design and effectiveness of site-specific mitigation and management measures (e.g. fauna movement structures, fencing, underpasses and overpasses). The draft EIS should describe how when undertaking the clearing of habitat/ vegetation within the construction footprint, what specific measures would be undertaken when the clearing activities coincide with the known October-May Koala breeding season.	Mitigation measures have been considered to reduce the potential impacts to flora and fauna within the Project footprint. A detailed breakdown of proposed Project impact mitigation measures during detailed design, pre-construction and construction, and operational stages is outlined Chapter 11: Flora and Fauna. Species specific mitigation measures for MNES and MSES flora and fauna species are also provided in Chapter 11: Flora and Fauna. Opportunities for the provision of fauna exclusion fencing and fauna movement solutions have been identified in the Appendix P: Fauna Connectivity Strategy. These include fencing strategies to guide species such as Koala to safe movement opportunities and will be refined through the detailed design process. Additional detailed mitigation measures, including measures to protect fauna, including specific measures for the Koala, during clearing of vegetation and habitat are addressed in Appendix N: Draft Fauna Management Plan and Appendix M: Draft Koala Management Plan.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
238	238.0039	State Agency	Flora and Fauna		The draft EIS should accurately describe the actual occurrence and extent of fauna species, including threatened and near threatened species predicted to occur and would be potentially impacted by Project. The draft EIS should undertake the required field investigations consistent with the stated EIS methodology and in accordance with requirements of Section 11.2, 11.25-11.32 and 11.95 of the ToR. Revised the impact assessment should be based on the extent of verified investigation and mapping within the Project area.	The draft EIS relies on predicted habitat mapping. The draft EIS should provide site-specific evidence that verifies the occurrence and extent of fauna species, and the required impact assessment based on site-specific surveys and investigations.	Since the draft Environmental Impact Statement (EIS) was released for public submission ARTC has undertaken additional ecology surveys which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix A of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix A Appendix O: Matters of National Environmental Significance Appendix A
238	238.0040	State Agency	Flora and Fauna		The draft EIS should identify those sites where land access issues were identified and inhibited the required on site-specific survey effort to validate for example, desktop predictive vegetation and habitat mapping, and soil characterisation. The draft EIS should discuss why land access was denied and what strategies, efforts, plans and future actions are proposed by ARTC to access those sites for the purpose of undertaking the required surveys to support the impact assessment investigations, including: <ul style="list-style-type: none"> What strategies/ plan are proposed to access the land for the purpose of site-specific surveys and impact assessment investigations What strategies/plans are in place to verify the predicted mapping/soil characterisation within site investigation areas should land access continues to be denied Amend Chapter 4 Assessment Methodology of the draft EIS to ensure land access is adequately considered in the EIS assessment methodology, particularly when the draft EIS is unable to deliver the required environmental assessment and supporting information in accordance with the ToR requirements. 	The draft EIS states that parts of the rail corridor Project footprint/ survey study area were not accessible due to land access issues. No specific information was provided as to why land access was denied and what strategies, efforts, plans and future actions are proposed to access those sites to undertake the necessary survey effort to support the impact assessment investigations, including: <ul style="list-style-type: none"> what continuing effort is being made to survey those sites what plans are in place to undertake the required surveys to verify the predicted mapping/ soil characterisation within site investigation areas should land access continue to be denied. Amendment Chapter 4 Assessment Methodology of the draft EIS to ensure land access is adequately considered in the EIS assessment methodology, particularly when the draft EIS is unable to deliver the required environmental assessment and supporting information in accordance with the ToR requirements. 	Since the draft Environmental Impact Statement (EIS) was released for public submission ARTC has undertaken additional ecology surveys which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix A of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix A Appendix O: Matters of National Environmental Significance Appendix A
238	238.0041	State Agency	Flora and Fauna		The draft EIS should clearly describe, assess and propose rehabilitation objectives, indicators and completion criteria, having regard to the hierarchy for rehabilitation. The draft EIS should demonstrate that the construction activities would avoid and minimise disturbance of land in order to limit the area requiring rehabilitation. The draft EIS should demonstrate that proposed rehabilitation success criteria can be achieved and describe suitable monitoring and contingency procedures for rehabilitation maintenance and redesign (if required). Correct ToR Compliance Table reference 22.10.2 to reflect the correct draft EIS section. Check all other Response Table references in Appendix B Compliance Table for accuracy.	The draft EIS does not adequately address sections 10.10(p), 11.50, 11.97 of the ToR. It is not sufficient for the draft EIS to state general best practice rehabilitation principles, outcomes and objectives of the rehabilitation hierarchy. Detailed information is required. The draft EIS does not provide sufficient information on specific rehabilitation objectives, indicators and completion criteria to demonstrate that identified environmental values would be protected. As a minimum, the draft EIS should: <ul style="list-style-type: none"> demonstrate that construction activities would avoid and minimise disturbance of land that would require rehabilitation describe the completion criteria to enable the success of rehabilitation to be measured, including monitoring indicators that can be measured, trigger and contingency procedures for rehabilitation maintenance and redesign (if required). Appendix - ToR compliance table, draft EIS. Response reference 22.10.2 is incorrect. Section 22.10.2 does not exist and Section 22.10 discusses construction hours, rather than landscaping and rehabilitation matters. Correct reference to reflect correct draft EIS Section and check all other Response reference in Appendix B. 	A Rehabilitation and Landscaping Management Plan will be developed for the Project as a component of the Construction Environmental Management Plan (CEMP). Details of the environmental outcomes, performance criteria, proposed mitigation measures, monitoring and adaptive management for this plan are contained in the Chapter 24: Draft Outline Environmental Management Plan, Chapter 11: Flora and Fauna, Appendix L: Terrestrial and Aquatic Ecology Technical Report. The plan will contain location-specific reinstatement commitments. As a minimum, it will establish the following: <ul style="list-style-type: none"> Location-specific objectives, indicators, and success criteria, for rehabilitation, reinstatement and/or stabilisation based on the hierarchy for rehabilitation Procedures, timeframes, measurable performance objectives and responsibilities for monitoring the success of rehabilitation and/or reinstatement/ stabilisation areas Consideration for maintenance or performance issues of rehabilitation, e.g. use of groundcover that does not grow and obscure signals or impact the longevity of rail infrastructure, and suitable monitoring and contingency procedures for rehabilitation maintenance and redesign if required Objectives and timeframes for rehabilitation and/or reinstatement/ stabilisation works (including biodiversity, vegetation establishment and erosion and sediment control outcomes to be achieved) Where appropriate, how the objectives align with relevant recovery plans, threat abatement plans, conservation advice, or policy guidance for target species in areas identified for rehabilitation Details of the actions and responsibilities to progressively rehabilitate, regenerate, and/or revegetate areas, while minimising the duration of exposure in disturbed areas Corrective actions if the outcomes of rehabilitation and/or reinstatement/stabilisation are not achieved. 	Chapter 11: Flora and Fauna Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report
238	238.0042	State Agency	Approvals/ conditions/ recommendations		There is no reference in draft EIS to relevant State and local government policies and procedures, e.g. DES operational policy: Revocation of QPWS managed areas.	The draft EIS should provide a thorough review of the relevant State and local government policies and procedures required to adequately describe their significance to, and implications for, the Project and its potential impacts, particularly regarding the revocation of QPWS managed areas	As stated at Section 3.1 of Chapter 3: Legislation and Approvals Process summarises the Commonwealth Government and Queensland Government legislation relevant to the Project and identifies the approvals, permits, licences and authorities necessary for the detailed design, construction works and operations stages of the Project. References to relevant State and local government policies and procedures, including the DES operational policy on the Revocation of QPWS managed areas, have been noted and discussed as relevant in the specialist chapters.	Chapter 3: Legislation and Project Approvals Process Section 3.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0043	State Agency	Approvals/ conditions/ recommendations		To date, ARTC has not requested approval from relevant State agencies for any works that would be subject to secondary approvals. The draft EIS states these approvals would be sought separately during detailed design phase.	The EIS provide enough detail to inform decision-makers as to the suitability of Project design and its implementation to ensure consistency, of approvals. The EIS should be specific about any required secondary approvals for proposed works.	As stated at Section 3.1, Chapter 3: Legislation and Project Approvals Process summarises the Commonwealth Government and Queensland Government legislation relevant to the Project and identifies the approvals, permits, licences and authorities necessary for the planning, construction works and operations stages of the Project. Secondary approvals have been noted and discussed as relevant in the various specialist chapters, addressing the requirements of Section 7 of the Terms of Reference for the EIS. Further discussion of secondary approvals is contained within the specialist chapters. Table 3-2 of Chapter 3: Legislation and Project Approvals Process includes a list of ERAs that may be required for the construction of the Project. Preliminary data on each of the activities associated with the ERAs has been provided as appropriate and where available. The revised draft EIS is not seeking approval or stated conditions associated with any ERAs. Preparation of ERA application material will occur prior to the relevant works and in consultation with the regulator. Information requirements will be addressed and collated during detailed design and the construction works stage.	Chapter 3: Legislation and Project Approvals Process Section 3.1 Table 3-2
238	238.0044	State Agency	Approvals/ conditions/ recommendations		There is no discussion in the draft EIS as to the type of interests that may be required to be compulsorily acquired, e.g. Land Act 1994 leases over State forest.	A thorough review of the requirements of the Acquisition of Land Act 1967 is required to ensure the draft EIS adequately describes its significance to the Project. The issue of compensation for affected Land Act 1994 lease interests on State forests should be adequately addressed if State forests are to be acquired (usually by revocation).	Chapter 8: Land Use and Tenure has been updated in the revised draft EIS. It states the following: Where the Project requires land to be acquired for the permanent footprint within a State forest, partial revocation of the State forests in accordance with the <i>Forestry Act 1959</i> (Qld) will be required to enable the future gazettal of rail corridor over the same land. The request for revocation of State forest triggers the need for an application for Protected Area Estate Revocation under the <i>Forestry Act 1959</i> (Qld) and requires a compensation ratio of 5:1 for tree removal. The statutory application process for seeking the revocation of part of each State forest is discussed in Section 8.6.2, Chapter 8: Land Use and Tenure. Compensation is payable to DES for the market value of the land at the relevant ratio as set out in the operational Policy: Revocation of QPWS managed areas (QPW/ 2016/1877 v1.03). A number of term leases under the <i>Land Act</i> (known as a special leases) have been granted over State forest. If ARTC is unable to negotiate a surrender of these leases, it will require a constructing authority to make a request to the Department of Resources to progress the resumption of the special leases by way of order in council under the <i>Land Act</i> (Chapter 8: Land Use and Tenure, Section 8.5.1).	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2
238	238.0045	State Agency	Approvals/ conditions/ recommendations		Table 3.3 Tenure within the Project footprint is incorrect.	State forest is not a lands lease. Update the State forest tenure in the EIS.	The submitter mentioned Section has been updated in the revised draft EIS. Revised draft EIS Chapter 8: Land Use and Tenure, Table 8-19 (Section 8.4.2) has been updated to detail tenure types as follows: <ul style="list-style-type: none"> ▶ Freehold ▶ Lands lease (other than State forest) ▶ Reserve ▶ State forest ▶ State land ▶ Road type parcel ▶ Unlinked parcel ▶ Watercourse. 	Chapter 8: Land Use and Tenure Section 8.4.2 Table 8-19
238	238.0046	State Agency	Approvals/ conditions/ recommendations		Temporary and permanent access to State forest cannot be undertaken in accordance with the Land Act 1994.	Update the draft EIS to accurately describe temporary the approvals and appropriate conditions for access to State forests that may be granted under the <i>Forestry Act 1959</i> (FA).	Chapter 3: Legislation and Project Approvals Process, Section 3.4.13 <i>Forestry Act 1959</i> , has been updated in the revised draft EIS. It states the following: Tenure arrangements, including compensation and offset requirements, for the revocation of State forest land will continue to be progressed during and following the completion of the EIS process in accordance with the operational policy: Revocation of QPWS managed areas (QPW/ 2016/ 1877 v1.03) and in continued consultation with DAF, DES and Department of Resources. To facilitate technical investigations before the partial revocation process, ARTC will obtain, separate to this revised draft EIS and where necessary, approvals for (Chapter 3: Legislation and Project Approvals Process, Section 3.4.13): <ul style="list-style-type: none"> ▶ Investigative works under Section 56 of the <i>Forestry Act</i> ▶ Permits to interfere with State-owned forest products and quarry material under Part 6 of the <i>Forestry Act</i>. The information required to support applications for the above approvals will become available through the detailed design stage. It's noted that following consultation between ARTC and DES (QPWS&P) on 23 September 2021, DES (QPWS&P) advised that an Occupation permit under Section 35 of the <i>Forestry Act</i> would not be the mechanism to access land where ARTC's intention was to partially revoke the land. Where access to land is required before revocation is completed, access will be gained through Minor disturbance works under Section 56 of the <i>Forestry Act</i> . Permits will be obtained by the proponent where required in accordance with the <i>Forestry Act</i> (Chapter 3: Legislation and Project Approvals Process, Section 3.4.13). In addition to the above, a number of 'special leases' have been granted over State forest. If ARTC is unable to negotiate the surrender of these leases it will require DTMR as the constructing authority to make a request to the DoR for the resumption of the special leases by way of order in council under the <i>Land Act</i> .	Chapter 3: Legislation and Project Approvals Process Section 3.4.13
238	238.0047	State Agency	Approvals/ conditions/ recommendations		There is no mention of the Fire and Emergency Services Act 1990 in the draft EIS. Reference to the cardinal principle of management of State forests at Section 33 of the <i>Forestry Act 1959</i> (FA) should be included in the draft EIS. There is inadequate discussion about commercial timber resources or other State forest users, e.g. Land Act 1994 lessees in the draft EIS. Section 25 of the FA is irrelevant in this instance, Section 26 however is relevant in relation to revoking part of the forestry estate.	The draft EIS should describe the requirements of the Fire and Emergency Services Act 1990 and any implications of the requirements of this Act on the proposed Project. The draft EIS should acknowledge that the management of State forests should be focused on the permanent reservation of such areas for the purpose of producing timber and associated products in perpetuity and of protecting a watershed therein. The EIS should demonstrate how these principles were considered in the location and carrying out of activities associated with the Project. Any proposed actions inconsistent with these principles should be identified, and proposed measures to compensate for the loss of these values should be Described. A thorough review of the FA is required to adequately describe its significance to, and implications for, the Project and the potential impacts from a tenure and user perspective.	The revised draft EIS acknowledges the potential impact the Project may have to the management of State forests. In Section 8.5.1 (Chapter 8: Land Use and Tenure) it states the Project will impact on the operation and management of the State forests by Queensland Parks and Wildlife Service and Partnerships (QPWS&P) and Queensland Fire and Emergency Service (QFES), specifically to the severance of existing access tracks throughout the State forests and through bushfire risks associated with construction works. The risks that have been identified include: <ul style="list-style-type: none"> ▶ Delayed response to emergency situations during construction driven by potential closure of access tracks, additional traffic on public roads, and temporary alterations to driving conditions (e.g. reduced speed limits, traffic controls, etc.) ▶ Delayed response to emergency situations during operation driven by severance of access roads ▶ Hot works conducted as part of the construction works in State forest areas has the potential to cause ignition. Proposed mitigation measures for Management of State Forest identified in Chapter 8: Land Use and Tenure, Section 8.6.2. The Project will result in changes to QPWS&P and QFES's management of the Bringally and Whetstone State forests, as described in Section 8.5.1. To mitigate the identified impacts, a series of mitigation measures are proposed. Impacts to QPWS&P and QFES response time to emergency situations are expected as a result of the severing of existing access roads throughout the State forests. To manage these impacts, appropriate access and egress solutions throughout the Bringally State forest will be incorporated into the detailed design of the Project. Additionally, all rail maintenance access roads incorporated into the rail corridor will be designed with emergency response vehicle specifications in mind, so that these roads can be used by response vehicles in emergency situations (Chapter 8: Land Use and Tenure, Section 8.6.2 and Table 8-51). To mitigate bushfire risks associated with the construction of the rail corridor, all 'hot-works' will only be undertaken in periods where the Bureau of Meteorology's (BoM) fire risk is less than 'extreme'. In the case that 'hot-works' are required to be carried out during 'extreme' fire risk periods, all works will be undertaken in accordance with ARTC's Total Fire Bans Procedure, and in accordance with relevant QFES permits. Bushfire management and response measures will be implemented into the Project Construction Environmental Management Plan (CEMP) (Chapter 8: Land Use and Tenure, Section 8.6.2). Once constructed, the rail corridor will be kept free of woody vegetation to provide a firebreak between the severed areas of the State forests. Additionally, management policies, including communications strategies with QPWS&P and QFES, and existing ARTC management plans will be adopted to manage risk associated with the operation of the Project.	Chapter 8: Land Use and Tenure Section 8.5.1 Section 8.6.2 Table 8-51
238	238.0048	State Agency	Approvals/ conditions/ recommendations		The draft EIS states that to facilitate technical investigations prior to revocation, various permits would be obtained, including an occupation permit under Section 35 of the <i>Forestry Act 1959</i> .	From discussions previously held with ARTC, QPWS may grant an Occupation Permit for areas of land in the State forests where the land is not permanently required for the Project, for example, for turn-around areas or areas where erosion and sediment control measures need to be implemented temporarily. A Section 56 is the permit that may be issued for investigative works. Ministerial In-Principle Approval for the revocation would be required prior to issuing an occupation permit/ s prior to works commencing to ensure that a decision of the Minister is not pre-empted. Therefore, the reference to occupation permits as an arrow point under 3.5.13.3 should be removed or at least qualified with wording such as where Ministerial in principle approval for any State forest revocation has been obtained. Further details and sufficient supporting information are required to be provided in the draft EIS.	Section 3.4.13 (Chapter 3: Legislation and Project Approvals Process) has been updated in the following manner: Tenure arrangements, including compensation and offset requirements, for the revocation of State forest land, will continue to be progressed during and following the completion of the EIS process in accordance with the operational policy: Revocation of QPWS managed areas (QPW/ 2016/1877 v1.034) and in continued consultation with DAF, DESI and Department of Resources, leaseholders and the BNTAC. Chapter 8: Land Use and Tenure describes land tenure arrangements for construction and operation of the Project. To facilitate technical investigations before the partial revocation process, ARTC will obtain, separate to this revised draft EIS and where necessary, approvals for (Chapter 3: Legislation and Project Approvals Process, Section 3.4.13): <ul style="list-style-type: none"> ▶ Investigative works under Section 56 of the <i>Forestry Act</i> ▶ Permits to interfere with State-owned forest products and quarry material under Part 6 of the <i>Forestry Act</i> The information required to support applications for the above approvals will become available through the detailed design stage. It's noted that following consultation between ARTC and DES (QPWS&P) on 23 September 2021, DES (QPWS&P) advised that an Occupation permit under Section 35 of the <i>Forestry Act</i> would not be the mechanism to access land where ARTC's intention was to partially revoke the land. Where access to land is required before revocation is completed, access will be gained through Minor disturbance works under Section 56 of the <i>Forestry Act</i> (Chapter 3: Legislation and Project Approvals Process, Section 3.4.13). Permits will be obtained by the proponent where required in accordance with the <i>Forestry Act</i> .	Chapter 3: Legislation and Project Approvals Process Section 3.4.13
238	238.0049	State Agency	Approvals/ conditions/ recommendations		This Section is severely depauperate in detail and glosses over the significance of the Land Act 1994 in relation to tenure and relevant authorities, e.g. Land Act 1994 leases over State forest, and statutory processes and procedures.	A thorough review of the Land Act 1994 is required to ensure the draft EIS adequately describes the significance of impacts on matters dealt with in the Act to the Project. The issue of compensation for affected Land Act 1994 lease interests on State forests should be addressed if State forests are to be acquired by revocation.	Chapter 8: Land Use and Tenure Section 8.6 has been updated in the revised draft EIS providing further detail on obtaining tenure for the Project and State forest revocation.	Chapter 8: Land Use and Tenure Section 8.6
238	238.0050	State Agency	Approvals/ conditions/ recommendations		Table 3.5 is severely depauperate in detail or otherwise incorrect: <ul style="list-style-type: none"> ▶ no mention of relevant ERAs (see page 43) - State forest revocation is undertaken in accordance with Section 26, not Section 32AA (see page 44) ▶ with the exception of quarry resources, most of the matters mentioned are the responsibility of DES as the administering authority, not DAF (see page 44) 	A thorough review of the <i>Forestry Act 1959</i> is required in relation to the Project to ensure the draft EIS adequately describes its significance to and implications for the Project, including relevant approvals. Further details and sufficient supporting information are required to be provided in the draft EIS.	Chapter 8: Land Use and Tenure Section 8.6 has been updated in the revised draft EIS providing further detail on obtaining tenure for the Project and State forest revocation.	Chapter 8: Land Use and Tenure Section 8.6
238	238.0051	State Agency	Land Use and Tenure		At 65 km chainage - Intersecting Bringally State Forest a portion of State forest would be alienated from the larger portion of State forest. An exclusion fence is proposed by GRC on one side of the ARTC rail corridor. The department notes that depending on the final alignment and severance (smaller fragment) area size, QPWS would seek to have not only the rail easement included as part of the revocation area, but also the severance area. Its purpose for timber production may not be lost, but ecosystem function such as fauna movement and water shed protection and on-ground management generally would be severely compromised.	Further details and sufficient supporting information are required to be provided in the draft EIS.	This issue is noted. The revised draft EIS has been updated to include detail that ARTC will update the revocation application and revoke the rail easement and the severance area in Bringally State Forest. Further discussion is presented in Chapter 8: Land Use and Tenure, Section 8.6. Applications for State forest partial revocation under the <i>Forestry Act 1959</i> (Qld) for the Whetstone and Bringally State forests were submitted to DES on 4 December 2019 and then subsequently updated revocation letters submitted to DES in May 2022. Consultation with QPWS&P, DES, DAF (Forestry), and DoR will continue through the detailed design process. The State forest revocation application will be supported by finalised land acquisition plans for the Project. Following submission of these Protected Area Estate Revocation applications, the further stages, in accordance with Section 26(2) of the <i>Forestry Act 1959</i> (Qld). Ministerial in-principle approval for the State forest partial revocation will be required to be obtained prior to the Coordinator-General accepting the final EIS. To ensure that no areas of State forest are alienated as a result of the Project, ARTC will revoke any areas which may be 'left-over' after the severance. Any cases where this was to occur based on the current alignment have been integrated into the State forest partial revocation application. Tenure arrangements, including compensation as offset requirements for the revocation of State forest land, will continue to be progressed through the constructing authority during and following the completion of the EIS process and in continued consultation with DAF, DES, DoR, leaseholders and The Bigambul Native Title Aboriginal Corporation (Chapter 8: Land Use and Tenure, Section 8.5.2). Offsets for the revocation of State forest areas will be provided via financial compensation to DES, via Department of Transport and Main Roads as constructing authority, in accordance with the operational Policy: Revocation of QPWS managed areas (Chapter 8: Land Use and Tenure, Section 8.6.2). A special lease over State forest may be resumed by way of an order in council under the Land Act. Every person who has a lawful interest in a resumed lease (or part of a resumed lease) has a right to claim compensation as prescribed under the Acquisition of Land Act 1967 (Qld).	Chapter 8: Land Use and Tenure Section 8.5.2 Section 8.6 Section 8.6.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0052	State Agency	Land Use and Tenure		The draft EIS wording in the seventh down mentions forest reserves.	Forest reserves are a Nature Conservation Act 1992 tenure. The draft EIS should clarify which forest reserve/s if any are or likely to be impacted by the Project.	Wording in Chapter 8: Land Use and Tenure, has been updated to discuss state forests. There are no mapped forest reserves, as defined under the Nature Conservation Act, within the Project footprint.	Chapter 8: Land Use and Tenure
238	238.0053	State Agency	Land Use and Tenure		First paragraph from the top incorrectly references Section 7.4.2.	The draft EIS should amend the reference to Section 7.4.2 to correctly reference Section 7.4.3 in the first paragraph.	Noted. Chapter 8: Land Use and Tenure as a whole has been updated, including content, references and numbers throughout this document.	Chapter 8: Land Use and Tenure
238	238.0054	State Agency	Land Use and Tenure		Draft EIS Figure 7.2 does not identify State lands (except stock routes).	Sufficient detail (at the appropriate scale) is required to illustrate significant land uses such as State forests and relevant tenure.	This issue is noted. Land tenure, including state land, is illustrated in Chapter 8: Land Use and Tenure, Figure 8-8. Chapter 8: Land Use and Tenure, Figures 8-1 and 8-8 have been updated in accordance with the DES proposed solution to provide clarity over the locations of State forest tenure.	Chapter 8: Land Use and Tenure Figure 8-1 Figure 8-8
238	238.0055	State Agency	Land Use and Tenure		Draft EIS Table 7.3 does not identify State forests. There are no forestry plantations within the Project area. Within the heading Farming, is pasture production a surrogate for grazing, or does it mean genuine pasture production, e.g. lucerne?	The draft EIS should include State forest in the item for Environment. The draft EIS should differentiate between Parks and Protected Areas under the item Environment e.g. Protected areas meaning under the NC Act, and Parks meaning Land Act 1994 reserves managed by local government. The draft EIS should clarify whether this line was meant to mean native forestry. The draft EIS should clarify what the intended meaning of pasture production is.	This issue is noted. Land tenure, including state land, is illustrated in Chapter 8: Land Use and Tenure, Figure 8-8. Chapter 8: Land Use and Tenure, Figures 8-1 and 8-8 have been updated in accordance with the DES proposed solution to provide clarity over the locations of State forest tenure.	Chapter 8: Land Use and Tenure Figure 8-1 Figure 8-8
238	238.0056	State Agency	Land Use and Tenure		The draft EIS does not adequately describe the other route alignments that were investigated but eventually discarded in favour of the preferred rail alignment.	The draft EIS should describe in sufficient detail the other route alignments that were investigated but eventually discarded in favour of the preferred alignment. Further supporting information should be provided in the draft EIS.	Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.9.3) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). As noted in Chapter 2: Project Rationale, Section 2.9.3, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Figure 2.15 Figure 2.14 Appendix E: Consultation Report Section 5.1
238	238.0057	State Agency	Land Use and Tenure		The draft EIS definitions are inaccurate. Second down is incorrect State forest is a tenure, not a type of lands lease. Third down State land is more than unallocated State land.	ARTC should note that State forest is a tenure, just like freehold. It may be leased e.g. under the Land Act 1994, or have some other form of authority granted over it. State forests are declared, not dedicated, under the Forestry Act 1959. This definition in the draft EIS, as that for State forest, requires rewording to ensure it is not misleading and is accurate.	This issue is noted. Corrections have been made for the revised draft EIS. Chapter 8: Land Use and Tenure, Section 8.5 has been reviewed and updated with consideration of DES proposed solution. Land Tenure, including state forests, is illustrated in Figure 8-8 of Chapter 8: Land Use and Tenure.	Chapter 8: Land Use and Tenure Section 8.5 Figure 8-8
238	238.0058	State Agency	Land Use and Tenure		Draft EIS Table 7.4 is incorrect.	See above comment regarding State forest and State land tenure definitions. State forest should be of treated as its a standalone type of tenure in this Table and in the draft EIS generally. Amend the draft EIS accordingly. Land Act 1994 leases granted over State forest would need to be further investigated and described accordingly e.g. there are four Land Act 1994 leases on Bringally State Forest with a total of 94.19 ha within the permanent Project footprint (see Appendix F). The issue of compensation for affected Land Act 1994 lease interests on State forests should be adequately addressed if State forests are to be acquired by revocation.	Tenure within the Project footprint has been updated within Chapter 8: Land Use and Tenure, Section 8.4.2, Table 8-19. The tenure of State forests is further outlined in Section 8.5.1, Table 8-37. Chapter 8: Land Use and Tenure, Section 8.5.1 and Section 8.6.2 discuss the potential impacts and proposed mitigation measures relating to the revocation of State forest. Chapter 8: Land Use and Tenure, Section 8.6.2 states, tenure arrangements, including compensation as offset requirements for the revocation of State forest land, will continue to be progressed through the constructing authority during and following the completion of the EIS process and in continued consultation with DAF, DES, DoR, leaseholders and The Bigambul Native Title Aboriginal Corporation. Offsets for the revocation of State forest areas will be provided via financial compensation to DES, via DTMR as constructing authority, in accordance with the operational Policy: Revocation of QPWS managed areas. A special lease over State forest may be resumed by way of an order in council under the Land Act. Every person who has a lawful interest in a resumed lease (or part of a resumed lease) has a right to claim compensation as prescribed under the AL Act.	Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.1 Section 8.6.2 Table 8-19 Table 8-37
238	238.0059	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient information on mining tenures on State forest. Some information is incorrect.	The department notes that Bringally State Forest contains an Exploration Permit for Coal EPC 970 (New Hope Exploration Pty Ltd) and an Exploration Permit for Minerals EPM27546 (Fiddler's Creek Mining Company Pty Ltd). Implications for affected mining tenures on State forests should be adequately addressed in the draft EIS if State forests are to be acquired by revocation.	Coal exploration permits EPC970 and EPM27546 are no longer active or have been completed according to Environmental Protection Act Public Register and GeoResGlobe. Appendix E: Consultation Report, Table E-16, E-18 and E-50 in the draft EIS contain information on the consultation undertaken to date regarding the existing mining exploration permits in place. This information has since been reviewed. The revised draft EIS has been updated to correctly identify the relevant exploration permits over Bringally State Forest, taking into consideration the slight alterations to the alignment and how these will impact the permit areas.	Appendix E: Consultation Report Table E-16 Table E-18 Table E-50
238	238.0060	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient information on native title matters and the implications for the Project.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on (but not limited to): <ol style="list-style-type: none"> Identify all First Nation peoples potentially impacted by the proposal include figures illustrating application, claim and determined native title areas identify the eight reserve and two State land parcels likely to have continued native title rights and interests (there is no detail provided to identify the affected 10 properties) the native title parties should have already been notified or consulted, not the parties that would need to be notified for the Project are the draft EIS should provide details about any relevant native title consultation and engagement to date. 	A detailed Native Title assessment has been undertaken for the Project, in accordance with the State's native title work procedures. The revised draft EIS has been amended to state that a detailed native title assessment has been carried out, and the results have been outlined in Chapter 8: Land Use and Tenure. ARTC is in the process of engaging with the relevant parties where native title has not been extinguished on land within the Project footprint regarding the process and approach to the surrender or acquisition of the native title rights and interests in question.	Chapter 8: Land Use and Tenure Section 8.4.2 Section 8.5.2 Figure 8-8
238	238.0061	State Agency	Land Use and Tenure		Draft EIS figures 7.4e and 7.4f do not distinguish between Whetstone State Forest and Land Act 1994 lease over State forest.	The draft EIS should be amended to improve the legend to differentiate between State forest tenure and Land Act lease. The maps as illustrated in Figures 7.4e and 7.4f are misleading. Whetstone State Forest is located on either side of the proposed alignment. However, this is not clear in the figures illustrated. The State forest should be labelled and/or colour coded the same on either side of the alignment, to reflect the impact to the State forest and State interest.	This issue is noted. This matter has been resolved through updates on the figures. Chapter 8: Land Use and Tenure, Figures 8-1 and 8-8 have been updated in accordance with the DES proposed solution to provide clarity over the locations of State Forest tenure.	Chapter 8: Land Use and Tenure Figure 8-1 Figure 8-8
238	238.0062	State Agency	Land Use and Tenure		Draft EIS figures 7.4h - 7.4j-k do not distinguish between Bringally State Forest and Land Act lease over State forest.	The draft EIS should be amended to improve the legend to differentiate between State forest tenure and Land Act lease. The maps as illustrated are misleading. The State forest is not represented accurately in shading and the legend. The Lands lease shading covers the representation of the State forest. The use of hatching would be appropriate to represent a Lands lease that is granted over a State forest. The Lands lease does not displace the State forest	Chapter 8: Land Use and Tenure Figure 8-5a-w has been updated in accordance with the DES proposed solution of hatching the lands lease to provide clarity over the locations where it is overlaid with state forest tenure.	Chapter 8: Land Use and Tenure Figure 8-5a-w
238	238.0063	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient information nor adequate discussion on the provision of alternative alignments.	The draft EIS should adequately discuss why the preferred alignment option has been chosen and provided sufficient information about those alternative routes investigated that illustrates why they were not chosen.	Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. Project Rationale, Section 2.7 provides a summary of the main alignment option assessments that were undertaken during the reference design and EIS development stage of the Project, from early 2018 to the present. The revised draft EIS Chapter 2: Project Rationale, Section 2.7 has been updated to include relevant information to justify the location of the Project in relation to the State forests.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix E: Consultation Report Section 5.1
238	238.0064	State Agency	Land Use and Tenure		Draft EIS Table 7.9 does not provided sufficient detail.	The draft EIS should clarify the State forest revocation area (assume production forestry to be surrogate). It is unclear in the draft EIS what is the nature conservation area of 16.05 ha?	Chapter 8: Land Use and Tenure, Section 8.5.1 provides details on the proposed revocation of State forest. The Project proposes the revocation of 108.4 hectares of State forest (80.47 hectares - Bringally State Forest and 27.93 hectares - Whetstone State Forest) (Chapter 8: Land Use and Tenure, Table 8-37). The Project requires land to be acquired for the permanent footprint within a State forest. This results in the proposed, partial revocation of the State forests in accordance with the Forestry Act 1959 (Qld) to enable the future gazettal of rail corridor over the same land. The total includes a reduced overall impact to State forest by 3.53 ha since the draft EIS as a result of the revised reference design (Chapter 8: Land Use and Tenure, Section 8.5.1).	Chapter 8: Land Use and Tenure Section 8.5.1 Table 8-37

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0065	State Agency	Land Use and Tenure		Draft EIS Table 7.11 chainage and Figure references are unclear.	Review Table 7.11 chainage and Figure references for Whetstone and Bringally State Forests for accuracy.	Chapter 8: Land Use and Tenure, Table 8-3 to 8-6 detail prominent land uses and the associated chainages for the following Project extents: <ul style="list-style-type: none"> NSW/QLD border to Whetstone (Ch 30.6 km (NS2B) to Ch 44.5 km) Whetstone to Millmerran (Ch 44.5 km to Ch 140.0 km) Millmerran to Yarranlea (Ch 140.0 km to Ch 154.65 km) Yarranlea to Gowrie Junction (ch 154.65 km to Ch 208.22 km) Relevant land use areas and localities are identified in Figure 8-4 and 8-5 at their relevant chainages. The prominent land uses identified in these tables are further detailed with their associated impacts summarised in Table 8-28.	Chapter 8: Land Use and Tenure Table 8-3 Table 8-4 Table 8-5 Table 8.6 Table 8-28 Figure 8-4 Figure 8-5
238	238.0066	State Agency	Land Use and Tenure		The draft EIS sub-heading title is incorrect in this Section State forests are not protected areas. Leases, and other authorities, may be granted over State forests. The meaning of sub-leases is unclear, misleading and incorrectly used in the draft EIS.	ARTC should note that protected areas are classes of land under the Nature Conservation Act 1992 - remove Protected and replace with Forestry or State forests. The draft EIS should clarify what is trying to be expressed conveyed using the term sub-lease. Amend the draft EIS replace sub-lease with Licences and permits to be consistent with what may be granted under the Forestry Act 1959.	Appendix L: Terrestrial and Aquatic Ecology Technical Report notes that the Project footprint does not overlap with, and therefore will not have a significant residual impact on any Protected Areas. Reference to protected areas has been removed from Chapter 8: Land Use and Tenure. Reference to sub-lease has been removed from Chapter 8: Land Use and Tenure.	Chapter 8: Land Use and Tenure Chapter 11: Flora and Fauna Section 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 7.2
238	238.0067	State Agency	Land Use and Tenure		Draft EIS Table 7.20 is unclear. Why is forestry a Tourism interest verses Agriculture, Extractive Resources or Biodiversity? The purpose for which the State forests are declared is inadequate.	The draft EIS should clarify why Tourism is the appropriate State interest category. State forests are relevant to both Environment and heritage and Agriculture State interests under the SPP. Ensure the purpose for which the State forests are declared is clear in the draft EIS - refer or paraphrase from the long title of the Forestry Act 1959, e.g. to provide for forest reservations, the management, silvicultural treatment and protection of State forests, and the sale and disposal of forest products and quarry material. The draft EIS should also include a reference to The cardinal principle to be observed in the management of State forests shall be the permanent reservation of such areas for the purpose of producing timber and associated products in perpetuity and of protecting a watershed therein. Update the relevant sections of the draft EIS accordingly.	Chapter 8: Land Use and Tenure, Section 8.4, Table 8-24 has been updated accordingly to ensure State forests are addressed by the Agriculture State interest and reference to them being a tourist interest has been removed.	Chapter 8: Land Use and Tenure Section 8.4 Table 8-24
238	238.0068	State Agency	Land Use and Tenure		The draft provides insufficient detail and an inadequate overview of potential impacts on State forests.	The draft EIS should be amended to demonstrate that the draft EIS has facilitated genuine stakeholder appraisal, consideration and feedback, including but not limited to: <ol style="list-style-type: none"> potential impacts to forestry production, apiary sites, or grazing leases on State forests the meaning of what is Change to notable land uses - see Table 7.32. additional properties may also be acquired where - this should be a known quantity and if not, that should be adequately discussed it is unacceptable that the extent of land acquisition will be confirmed following completion of the detailed design. Assessment in the draft EIS requires potential impacts and required acquisitions of land to be defined clearly described. there is no detail provided for the proposed laydown area within Bringally State Forest. Update relevant draft EIS chapters accordingly. 	Mitigation and management measures for the State forest have been included throughout the revised draft EIS in order to provide more detailed information for assessing the impacts of the Project. <ol style="list-style-type: none"> Appendix C of the draft EIS has been updated and is now called Appendix E: Consultation Report with information regarding stakeholder engagement between ARTC and State agencies on forestry production, apiary sites, and grazing leases on state forest land Chapter 8: Land Use and Tenure has been updated to clarify the term change to notable land uses Chapter 8: Land Use and Tenure, Section 8.5 has been updated to clarify the statement regarding additional properties that may be required. Chapter 8: Land Use and Tenure, Section 8.4 has been refined in order to contain greater confidence of the Projects that will be impacted by the Project. Appendix B3: Changes to Reference Design since draft EIS, details the laydown area within Bringally State Forest is proposed to be moved to an area within the road reserve. A second laydown area adjacent to the State forest has been reduced and a buffer added to minimise impacts to the State forest. 	Chapter 8: Land Use and Tenure Section 8.4 Section 8.5 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 5.7
238	238.0069	State Agency	Land Use and Tenure		Draft EIS Table 7.24 is incorrect.	See comment above for Chapter 7, Section 7.5 Existing environment, 7.5.1 Land tenure, Page 34. Clarification is required as to what lands leases are affected e.g. leases over State forest verses other Land Act 1994 leases impacted by the proposal.	Chapter 8: Land Use and Tenure, Tables 8-36 and 8-38 have been reviewed and updated with latest numbers based on review of available data.	Chapter 8: Land Use and Tenure Table 8-36 Table 8-38
238	238.0070	State Agency	Land Use and Tenure		The draft EIS states "The Request for Revocation of State forest triggers the need for an Application for Protected Area Estate under the Forestry Act 1959 (Qld) and requires a compensation ratio of 5:1 for tree removal. This statement is incorrect for the following reasons: <ol style="list-style-type: none"> The State forests subject to this Project are classed as QPWS Managed Areas (State land) and are not protected areas (e.g. National Parks) see definition. As part of the revocation process, a compensation ratio for the land component is required. Other compensation components may be required, for example by DAF, for the loss of the commercial timber component. Compensation is required at a ratio of 5:1 for the loss of the QPWS managed area and the inherent attributes of the land and is calculated at 5 times the land value. The compensation is not for tree removal, this is considered a separate matter which ARTC would need to negotiate with DAF separate to the revocation process. 	The draft EIS should provide sufficient detail to justify why a State forest revocation is required, including adequate stakeholder engagement (e.g. lessees, and the statutory processes required to give effect to a State forest revocation). The desire by the department as a stakeholder, as was expressed in formal communications to ARTC, to avoid impacts to State forests is not discussed nor adequately addressed in the draft EIS. The revocation proposal would be for a State forest, not a Protected Area Estate. Revocation compensation is required at a ratio of 5:1 for State forests based on land value. This is separate to the issue of tree removal prior to any revocation. Additional compensation may also apply for economic losses relating to lost timber and other forest production (see Section 7.7.2.1). Amend the draft EIS so that the information is correct by using the department's operational Policy for Revocation of QPWS Managed Areas. In addition, protected area means any of the following under the Nature Conservation Act 1992: <ol style="list-style-type: none"> a national park (scientific) a national park a national park (Aboriginal land) a national park (Torres Strait Islander land) a national park (Cape York Peninsula Aboriginal land) a conservation park a resources reserve a special wildlife reserve. 	This issue is noted. Compensation for impacts to State forest areas have been reviewed and discussed during consultation with the relevant state departments in Section 2.8 of Chapter 2: Project Rationale. The revised draft EIS has been amended so that the information is in accordance with the department's operational Policy for Revocation of QPWS Managed Areas. Furthermore, additional detail has been included in Chapter 2: Project Rationale that justifies the location of the Inland Rail alignment.	Chapter 2: Project Rationale Section 2.8 Appendix E: Consultation Report Section 5.7
238	238.0071	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on State forest land fragmentation, access and impacts on infrastructure.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on: <ol style="list-style-type: none"> land fragmentation and disruption to access and infrastructure should be considered and adequately addressed land fragmentation is not addressed for State forests. The Project proposes further fragmentation of State forests. Fragmentation would affect management and operations of State forests, including, but not limited to access arrangements and fire management, as well potential impacts on environmental values. The draft EIS should be specific and clear as to how the State forests would be further fragmented and where the Project does not align with existing corridors that already fragment the State forest.	In May 2021 ARTC provided DES additional information pertaining to the requests for the partial revocation of Bringally and Whetstone State forests. In Chapter 6: Stakeholder Engagement, Section 6.9 details outcomes of stakeholder engagement, Chapter 20: Traffic, Transport and Access Section 20.5 and Section 20.6 details impacts to access and provides mitigation measures by maintaining or consolidating public roads and ecological impacts from fragmentation of habitat in State forests is discussed in Chapter 11: Flora and Fauna. ARTC's fencing strategy is described in Chapter 5: Project Description, Section 5.4.12 and Appendix P: Fauna Connectivity Strategy, Chapter 21: Hazard and Risk details biosecurity impacts and mitigations to the wild dog check fence and wildfires (Section 8.6.2, Table 21-16). ARTC will prepare a Sediment and Erosion Control Plan as per Chapter 24: Draft Outline Environmental Management Plan and will prepare an operational Environmental Management Plan. Each road interface within the State forest has been reviewed and a proposed interface treatment identified in consultation with QPWS and DAF. All formed public roads are proposed to be treated with level crossings or grade separations so as to maintain the continuity of access throughout the State forests as much as reasonably possible. These are all detailed in Chapter 8: Land Use and Tenure Section 8.6.2 and Table 8-50.	Chapter 5: Project Description Section 5.4.12 Chapter 6: Stakeholder Engagement Section 6.9 Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16 Chapter 8: Land Use and Tenure Section 8.6.2 Table 8-50 Chapter 20: Traffic, Transport and Access Section 20.5 Section 20.6 Chapter 24: Draft Outline Environmental Management Plan Chapter 11: Flora and Fauna Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0072	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on State forest agricultural uses and activities.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on apian activities, including potential impacts on this forest agricultural use and any discussions and outcomes with DAF, QPWS&P and apiarists.	ARTC engaged with QPWS&P and Office of Coordinator-General on 17 March 2023 to discuss the wild dog check fence and wildfire management. Outcomes from this meeting include ARTC to establish communication protocols with emergency services and a commitment that any Safety or Traffic management plan should consult with emergency services and QPWS. Engagement with DAF and DES (QPWS&P) occurred in Q2 2022 on State forest uses, including apian leases, forestry activities and grazing leases. Additional engagement with Queensland Beekeepers on apian activities occurred in 2021. Consultation with DAF and Queensland Beekeepers Association has determined that the Project will have no impact on apian activities. Chapter 8: Land Use and Tenure has been updated based on the results of consultation undertaken with regulators and is outlined in Appendix E: Consultation Report.	Chapter 6: Stakeholder Engagement Section 6.6 Chapter 8: Land Use and Tenure Appendix E: Consultation Report Section 5.7
238	238.0073	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on wild dog barrier fence.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on the wild dog barrier fence, including potential impacts and proposed alignments, discussions and outcomes with GRC, QPWS&P and DAF.	Throughout the development of the revised draft EIS, ARTC has had ongoing engagement with GRC regarding the wild dog check fence. An in-principal agreement has been reached to retrofit the wild dog check fence with structures to enable fauna crossing and permeability of the fence. Engagement on this matter will continue into detailed design. Additional engagement with DAF and DES was undertaken in June 2022 regarding wildfire mitigation and impacts. Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report have been updated to reflect this consultation and outcomes. Chapter 8: Land Use and Tenure has been updated based on the results of consultation undertaken with regulators outlined in Appendix E: Consultation Report.	Chapter 6: Stakeholder Engagement Section 6.6 Chapter 8: Land Use and Tenure Appendix E: Consultation Report Section 5.8
238	238.0074	State Agency	Land Use and Tenure		Table 7.32 - The draft EIS states. As the permanent footprint is located along the boundary of the State Forest The proposed route dissects Whetstone State Forest, despite the route following an existing road reserve corridor. ARTC may have misunderstood that a Land Lease to the south is not State forest when in fact both are State forest tenure. As this route follows the existing route it should not cause any concern for land management of the State Forest.	Amend the draft EIS wording to clarify the road reserve corridor.	This issue is noted. Wording around State forest and land tenure has been reviewed and updated based on comments received from DES. Chapter 8: Land Use and Tenure, Section 8.4 has been reviewed and updated as indicated in the submission.	Chapter 8: Land Use and Tenure Section 8.4
238	238.0075	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on State forest access and crossings.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on: 1. potential impacts on access State forest areas 2. the outcomes of access/ crossings discussions with QPWS&P and DAF.	Each road interface within the State forest has been reviewed and a proposed interface treatment identified in consultation with QPWS&P and DAF. All formed public roads are proposed to be treated with level crossings or grade separations so as to maintain the continuity of access throughout the State forests as much as reasonably possible. These are all detailed in Section 8.6.2 and Table 8-50.	Chapter 8: Land Use and Tenure Section 8.6.2 Table 8-50 Appendix E: Consultation Report Section 5.7
238	238.0076	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on proposed mitigation measures, including regarding wildfire mitigation, wild dog barrier fence impacts and proposed alignment and proposed revocation of State forest areas.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project on: 1. Wildfire mitigation 2. Wild dog barrier fence impacts and proposed alignments should have already been considered and addressed with GRC, QPWS&P and DAF, and 3. An application to revoke parts of the QPWS managed estate has been made (but is awaiting a detailed response from ARTC).	ARTC engaged with QPWS&P and Office of Coordinator-General on 17 March 2023 to discuss the wild dog check fence and wildfire management. Outcomes from this meeting include ARTC to establish communication protocols with emergency services and a commitment that any Safety or Traffic management plan should consult with emergency services and QPWS. Engagement with DAF and DES (QPWS&P) occurred in Q2 2022 on State forest uses, including apian leases, forestry activities and grazing leases. Additional engagement with Queensland Beekeepers on apian activities occurred in 2021. The revised draft EIS has been updated to include details of consultation and discussions held with government agencies and community groups since the publication of the draft EIS. Further information has been included regarding the approach that will be taken with regard to impacts to individually consulted landholders. Chapter 8: Land Use and Tenure has been updated based on the results of consultation undertaken with regulators and is outlined in Appendix E: Consultation Report.	Chapter 8: Land Use and Tenure Appendix E: Consultation Report Section 5.7
238	238.0077	State Agency	Land Use and Tenure		ARTC to note: State Forest tenure would not require locked mitigation measures to prevent the movement of people through gates. Gates on access points will have of a wild dog check fence and would be required to meet biosecurity standards for the prevention of wild dog movement and be permanently shut when vehicles are not traversing the area.	Update the draft EIS proposed locked mitigation measures to reflect appropriate access requirements.	ARTC will review locked gate mitigation measures to reflect appropriate access requirements on State Forests. ARTC commits to consultation with leaseholders and QPWS&P regarding locked gates (Chapter 8: Land Use and Tenure, Section 8.6.2).	Chapter 8: Land Use and Tenure Section 8.6.2 Appendix E: Consultation Report Section 5.7
238	238.0078	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on Land Act 1994 lease mitigation measures, including appropriate compensation and stakeholder engagement.	The draft EIS should describe that Land Act 1994 leases may also be acquired under the ALA. The draft EIS should discuss how lessees on State forest who are losing some of their interest in the land be compensated. The draft EIS should describe facilitated actions, genuine stakeholder appraisal, consideration and feedback	Chapter 8: Land Use and Tenure, ARTC plan to negotiate either the partial or whole surrender of these impacted grazing leases interests under the Land Act 1994. If unsuccessful, the impacted grazing leases will be required to be compulsorily acquired through Department of Transport and Main Roads. Under the Acquisition of Land Act 1967 (Qld), every person who has a lawful interest in a resumed lease (or part of a resumed lease) has a right to claim compensation. Section 8.5.1 states, in some instances, appropriate tenure or interest in State land that supports the proposed development will be secured by ARTC under the Land Act 1994. In these cases, contact will be made as soon as reasonably practicable with the Department of Resources Land Administration and Acquisition Team to discuss options and to begin proceedings under the Land Act 1994.	Chapter 8: Land Use and Tenure Section 8.5.1 Appendix E: Consultation Report Section 5.7
238	238.0079	State Agency	Land Use and Tenure		The draft EIS provides insufficient detail, is factually incorrect and pre-empts a decision of the Minister and Parliamentary Counsel. The draft EIS does not adequately address the requirements of Section 11.76 of the ToR. The ToR requires the draft EIS to provide a description of the impacts on existing uses of State land, including State forest and uses either allowed by current tenures or publicly proposed by government at the time of preparation of the EIS. This information should be provided in the draft EIS.	The draft EIS does should fully address the requirements of Section 11.76 of the ToR. The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project. Details provided in the draft EIS on the revocation process are limited and is not considered sufficient in order to assess whether In-Principle Approval would be considered for the revocation of the State forest land. Is it unknown whether ARTC propose a cash payment, land exchange or a combination would be provided as compensation? Before In-Principle Approval can be given, DAF have requested in writing, confirmation of what would occur as a result of changing access for large tree-harvesting equipment and movement. This is to ensure that tree-harvesting equipment can move in and out of the State forests without causing excess haulage costs. Furthermore, from a safety perspective, it is to ensure that in the event of any fire hazards, that people can exit the State forest safely. The department understands that these DAF matters have been raised with ARTC, however DAF has not received confirmation that the matters raised have been adequately address. The draft EIS should describe any changes to existing access arrangements and ensure that any new access required would be constructed and paid for by ARTC. Sufficient supporting information should be provided in the draft EIS to address these matters.	In May 2021, ARTC provided DES additional information pertaining to the requests for the partial revocation of Bringally and Whetstone State forests. Further information on the State forest revocation process is provided in Sections 8.5.1 of Chapter 8: Land Use and Tenure. In context of the EIS process, included that Ministerial in-principle approval for the State forest revocation is required to be obtained prior to the Office of Coordinator-General accepting the final EIS. The process for State Forest revocation is detailed in Chapter 3: Legislation and Project Approvals Process, Section 3.4.13.	Chapter 3: Legislation and Project Approvals Process Section 3.4.13 Chapter 8: Land Use and Tenure Section 8.5.1 Appendix E: Consultation Report Section 5.7
238	238.0080	State Agency	Land Use and Tenure		Draft EIS Table 7.38 does not provide sufficient detail on stakeholder appraisal and engagement.	The draft EIS should detail the facilitated actions, genuine stakeholder appraisal, consideration and feedback of the proposed Project.	The revised draft EIS details the stakeholder engagement activities undertaken for the Project. Since the draft EIS, ARTC has undertaken additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.	Appendix E: Consultation Report Section 4
238	238.0081	State Agency	Land Use and Tenure		The draft EIS does not provide sufficient detail on future land use intent and development.	See comment above regarding Chapter 7, 7.5.3 Future land use intent and development activity, Page 7-147 why is forestry a Tourism interest versus Agriculture, Extractive Resources or Biodiversity?	This issue is noted. Additional advice has been received from the department regarding a way forward. Updates have been made to Chapter 8: Land Use and Tenure, Section 8.5.4 and any other sections relating to State Planning Policy. Sections have been updated with State forests changed from tourism state interest to Agriculture.	Chapter 8: Land Use and Tenure Section 8.5.4
238	238.0082	State Agency	Flora and Fauna		The draft EIS should include site-specific data to support the impact assessment that based on actual data from ecological surveys and not only desktop assessments.	The draft EIS includes many comments which are not definitive e.g. 'These communities may provide habitats for a number of threatened flora and fauna species'.	Since the draft Environmental Impact Statement (EIS) was released for public submission ARTC has undertaken additional ecology surveys which ground-truthed the Project disturbance footprint. The purpose of these surveys was to validate desktop-based mapping to identify baseline conditions to inform the detailed design of the Project. At each terrestrial sampling location, a vegetation survey, a fauna habitat assessment, active searches for cryptic fauna and opportunistic observations were undertaken as a minimum (Chapter 11: Flora and Fauna). A total of thirty-two regional ecosystems (REs) were ground-truthed within the Project footprint, comprising 'Least Concern', 'Of Concern' and 'Endangered' communities under the Vegetation Management Act 1999 (QLD) (Appendix L: Terrestrial and Aquatic Ecology Technical Report). A detailed assessment on Potential Impacts of the Project has been conducted and can be found in Chapter 11: Flora and Fauna. Some examples of identified impacts include Habitat loss and degradation, Displacement of threatened species, Barrier/ Edge effects, Lighting, Dust, Erosion, Contamination and more.	Chapter 11: Flora and Fauna Section 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report
238	238.0083	State Agency	Flora and Fauna		The draft EIS should detail the location of any proposed wash-down facilities and how weeds would be managed to prevent spread into and out of the State forests during the construction phase. The location would need to be agreed upon prior to construction. A Biosecurity Management Plan should be submitted as part of this draft EIS which provides sufficient details as to how pest species would be managed and locations of any washdown facilities.	The draft EIS identified Mother-of-Millions as a noxious weed in the impact assessment area as well as other weeds. Chapter 19, Hazard and Risk, should outlined in sufficient detail how the State forests would be protected from the noxious weed e.g. outline where the wash-down facilities would be located.	Chapter 11: Flora and Fauna details the specifications that will be included in the Biosecurity Management Plan of the Construction Environmental Management Plan (CEMP) which will be developed by the contractor in the detailed design. This will include locations of vehicle washdown and weed management requirements.	Chapter 11: Flora and Fauna Section 11.6

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0084	State Agency	Flora and Fauna	operational rail noise	The draft EIS should assess whether the increase in noise from train traffic would affect any native fauna species. A description of any potential impacted on fauna values in the State forests was not detailed in the draft EIS. The draft EIS only describes construction noise impacts on fauna, however operational noise impacts on fauna have not been adequately assessed, particularly in State forest areas and on listed threatened species. The draft EIS identifies cumulative impacts as having the potential to affect ecological values, however the potential impacts on any specific fauna species was not addressed in the draft EIS. This information should be provided in the draft EIS.	The draft EIS has not adequately addressed Section sections 11.117 and 11.120 of the ToR. The potential impacts on fauna from an increase in train noise has not be adequately addressed in the draft EIS. The department notes that several bat species were recorded as well as other fauna species that may be affected by the increase in noise due to train traffic. The ToR requires cumulative impacts and general impacts on fauna be adequately assessed.	The Project has been revised to include an assessment of potential noise and vibration impacts to native fauna and considers both construction and operational noise impacts. Refer to Chapter 11: Flora and Fauna and Chapter 16: Noise and Vibration. The assessment of construction noise determines that noise associated with construction activities will be short-term in duration and it is likely that fauna will temporarily move out of areas that are subject to high levels of noise. Construction noise will be perceivable by fauna species within the area as the harmonic ranges produced by construction overlap with the hearing range and frequency of birdsong with species that occur in the area. This can potentially affect communication including calling to attract mates, territory defence, and warning of predators. Operational noise may lead to some fauna species temporarily vacating/ avoiding nearby habitat until the temporary noise (pulse) passes. The duration and frequency of the operational noise is unlikely to result in significant changes to species behaviour or avoidance of the area. ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Chapter 16: Noise and Vibration. Potential impacts from construction activities, including blasting activities, and railway operations were assessed in the revised draft EIS, in accordance with the Department of Transport and Main Roads (QLD) Codes of Practice (Volume 1 and 2) and their Interim Guideline (2019). Refer to Chapter 16: Noise and Vibration and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic and Appendix W: Noise and Vibration – Railway operations. DTMR's publications do not provide any guidance on assessing noise and vibration impacts to domestic livestock or native fauna. There are no current Australian guidelines or standards requiring the assessment noise and vibration impacts to domestic livestock or native fauna and nor are they assessable under the final Border to Gowrie EIS terms of reference. Reasonable and practical mitigation and management measures have been presented in the revised draft EIS, Chapter 16: Noise and Vibration and Chapter 24: Draft Outline Environmental Management Plan.	Chapter 11: Flora and Fauna Sections 11.5 and 11.7 Chapter 16: Noise and Vibration Chapter 24: Draft Outline Environmental Management Plan Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations
238	238.0085	State Agency	Flora and Fauna		Clarification: Bringly and Whetstone State Forests are not classed as Protected Areas under the Forestry Act 1959. Protected areas are dedicated or declared under the Nature Conservation Act 1992. State forests are declared under the Forestry Act 1959. State forests are not MSES of themselves as protected areas are, however, State forests may contain a matter that is MSES.	See comment above regarding Protected Areas. The SPP mapping incorrectly labels State forests as Protected Areas (Estate) instead of a State forest. Update the draft EIS accordingly. Note: An offset may still be required, and these areas may still contain Matters of State Environmental Significance such as Wildlife Habitat, Regulated Vegetation (Cat B and Cat C), essential habitat and may contain high ecological value waters which would require consideration for an offset.	Appendix L: Terrestrial and Aquatic Ecology Technical Report has been updated to correctly identify State forests.	Appendix L: Terrestrial and Aquatic Ecology Technical Report
238	238.0086	State Agency	Land Use and Tenure		See comment above State forests are not classed as Protected Areas.	For accuracy and to not be misleading, all draft EIS references to Protected Areas in relation to the State forests in the draft EIS will need to be amended.	Noted and EIS to be amended accordingly. Mention of protected area has been removed from Chapter 8: Land Use and Tenure.	Chapter 8: Land Use and Tenure
238	238.0087	State Agency	Flora and Fauna		All the sub-plans as a component of the CEMP should be included as part of the draft EIS to allow the department to adequately assess the potential Project impacts and the effectiveness of proposed mitigation and management measures.	In particular, the draft EIS should include: - the biodiversity management plan - flora and fauna plan - soil management plan - surface water management plan - fauna movement provision and fencing strategy - rehabilitation and landscape management plan - biosecurity management plan and environmental management plan. Details should be provided in the draft EIS on the locations for wash down facilities, fauna passages and fauna fencing, access track relocation and use, and erosion and sediment control measures. These matters would need to be agreed upon with QPWS&P.	Chapter 24: Draft Outline Environmental Management Plan details the specifications that will be included in each Plan of the Construction Environmental Management Plan (CEMP). The Plans will be developed by the contractor in the detailed design.	Chapter 24: Draft Outline Environmental Management Plan
238	238.0088	State Agency	Flora and Fauna		Detailed ecological surveys should be provided in the draft EIS. The survey results and detailed assessment should be provided in the draft EIS along with the location and design of fauna movement structures and information to support relevant sub-plans as part of the CEMP.	The draft EIS states that ARTC is committed to undertaking detailed ecological surveys and these will be conducted throughout the Project and in parallel to the development of the detailed design.	Since the draft Environmental Impact Statement (EIS) was released for public submission ARTC has undertaken additional ecology surveys which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods and results of these survey efforts are available in Chapter 11: Flora and Fauna. A fauna connectivity strategy has also been prepared for the Project (Appendix P: Fauna Connectivity Strategy) which identifies the location of proposed fauna crossing opportunities for species such as Koala (Phascolarctos cinereus). These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process.	Chapter 11: Flora and Fauna Appendix P: Fauna Connectivity Strategy
238	238.0089	State Agency	Hazard and Risk		Detail Design Section under Hazard Type Natural/ Bushfire dot Point 1. This should be agreed to and designs provided in the revised draft EIS. Dot Point 2. This aspect of the design will be supported by consultation with DAF to ensure sufficient access is available for emergency access and firefighting activities.	The revised draft EIS should provide further detail information to support: 1. Consult with DAF and QPWS to ensure agreement of the access has been negotiated and agreed upon 2. Amend the statement to also include QPWS (not only DAF) with regards to emergency access for firefighting activities. Agreement and details about access for timber harvesting equipment should be agreed upon and included in the revised draft EIS.	ARTC engaged with stakeholders has continued to consult with DAF and QPWS (DES) on these matters since the release of the revised draft EIS for public consultation. Examples of such consultation include: ▶ 15 November 2021 - ARTC engaged with stakeholders met with DAF and QPWS to understand local use of the forest, and impact on timber harvesting operations, apiary licencing and use and fire tracks and access. ▶ 2 June 2022 – ARTC engaged with stakeholders met with DAF and the Office of the Coordinator-General to discuss: ▶ Compensation and engagement framework for impact to forest interests, including timber harvesting ▶ Access requirements and emergency and fire mitigation measures ▶ 17 March 2023 - ARTC engaged with stakeholders continued to consult with QPWS on how the Project has maintained access to enable emergency vehicle access for firefighting activities and ARTC engaged with stakeholders and Contractors protocols and committed to future consultation with QPWS, DAF, Queensland Fire and Emergency Services and on the establishment of a Disaster Management Committee. In addition, ARTC engaged with stakeholders continues to consult regularly with Queensland Fire and Emergency Services and the District Disaster Management Group regarding emergency access arrangement. Consultation undertaken to inform the revised reference design and revised draft EIS are documented in Appendix E: Consultation Report. Feedback from these consultation sessions has been incorporated into the revised reference design and the revised draft EIS. Drawings of the revised reference design are provided as Appendix B1: Design Drawings to the revised draft EIS. Section 21.6.2 of Chapter 21: Hazard and Risk has been updated with hazard/ risk reduction measures of bushfires including consultation with DAF, QFES and QPWS regarding access for timber harvesting and firefighting activities. Proposed mitigations for this hazard are discussed in Section 21.6.2, Table 21-16 of Chapter 21: Hazard and Risk.	Chapter 21: Hazard and Risk Section 21.6.2 Table 21-16 Appendix B1: Design Drawings Appendix E: Consultation Report
238	238.0090	State Agency	Flora and Fauna		The draft EIS should assess how fauna may escape during a fire event if a new fence or the rail corridor blocks their path. The draft EIS should provide sufficient detailed information on the proposed fauna corridors and linkage between newly separated sections of State forest.	As a result of the change to the landscape from fencing and the rail corridor within the State forest, during a bushfire, fauna may have difficulty escaping if barriers are in the way or cause fauna to become trapped.	Since the submission of the draft Environmental Impact Statement (EIS), ARTC has developed the following key document: Appendix P: Fauna Connectivity Strategy. This document will be standalone appendices for the revised draft EIS and was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010 respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised draft Appendix P: Fauna Connectivity Strategy). The existing Wild Dog Check Fence already provides a physical barrier to the ability of native fauna to cross through the landscape, while preventing the wild dogs moving to declared "clean dog free areas". In relation to potential impacts from bush fires, the draft Fauna Connectivity Strategy proposes to mitigate the barrier effect of the Wild Dog Check Fence by implementing the following strategies: ▶ Installing 'Koala escape poles', which are 'n' shaped poles that straddle the fence and allow Koalas and possums to climb up and over the fence in both directions. Koala escape poles may also allow the movement of Spot-tailed Quolls across the fence, were they to encounter the fence. Escape poles should be located at 250 m intervals in Koala habitat. ▶ Include mesh with larger aperture at ground level that prevents movement of dogs but allows movement of smaller animals (e.g. frogs, reptiles, small mammals) through the fence. Sections of larger mesh should be 3 m in length and be positioned every 50 m along the fence. Install a short Section of perpendicular fence mid-way on each Section of mesh to direct small animals to use the mesh to pass through the fence. ▶ Install canopy bridges to allow possums and gliders to traverse the fence. Canopy bridges may not be needed in areas with both glider poles and Koala escape poles or in areas where canopy connectivity is maintained above the fence. ▶ Install glider poles to allow gliders to safely glide above the fence. Glider poles are not required where canopy connectivity is maintained above the fence. ▶ For all other species (e.g. Emu, Kangaroos) remain impacted by the wild dog fence as there are no mitigation measures for these species that do not also allow the movement of wild dogs.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
238	238.0091	State Agency	Flora and Fauna		The draft EIS does not provide adequately addresses the ToR offset requirements, nor provide adequate ground-truthing to determine impacts with sufficient accuracy. The department notes that Strategy is an overall framework document, and that delivery detail would come sometime later, that some estimates of feasibility have been made but no clear study or Information of commercial costs has been done, and only a small amount of consultation with local landholders has occurred and only on a theoretical basis in local areas where potential offsets are to gauge informal interest. Despite its detailed outline of potential offset sites in Table 4, it is unclear how likely it is that landholders would agree to offset activities or would want to sell to ARTC, and there is no approximate cost for land-based offsets provided in the draft EIS. Therefore, this Strategy does not appear to effectively outline the extent, risks or costs associated with the Strategy, if implemented. Nor what would occur if costs for Strategy implementation were prohibitive or where ineffective at addressing potential offsets.	The draft EIS should provide researched costings and probability of success for implementing the Strategy, including detail of landholder consultation and/or previous sales data.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated species habitats. This field-verified data has been used to classify threatened species habitat mapping in accordance with State and Commonwealth guidelines and policies. The most recent field data from the technical ecological assessment from Ausecology (2022) and recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC), was used to support the development the revised draft EIS and key species management plans and to determine potential offset requirements.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. As outlined in Chapter 11: Flora and Fauna, these mitigation measures have been selected based on the best available information including government guidelines and similar Projects. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation, and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Ecology and Aquatic Ecology Technical Report.</p> <p>Where impacts to threatened species habitat cannot be avoided, mitigation and management measures will be implemented. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the construction works and operations stages. Impact mitigation will include pre-clearance surveys prior to disturbance. Management and mitigation measures to protect vulnerable and endangered species are proposed in Chapter 24: Draft Outline Environmental Management Plan and Chapter 11: Flora and Fauna.</p> <p>In instances where a significant residual impact as identified by the relevant EPBC Act significant assessment criteria, biodiversity offsets will be secured (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report). ARTC will provide biodiversity offsets in accordance with the relevant state or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Environmental Offset Delivery Strategy.</p> <p>To deliver the offset requirements for the Project, ARTC has developed a property portfolio which includes selected properties along or near the alignment, that could be used to acquit the required offsets for MNES and MSES matters. The selection of potential offset properties was facilitated through a purpose-built Inland Rail – Multi-Criteria Decision Support Tool (MCDS tool). The MCDS tool is a spatial tool designed to rank properties in an area of interest for offset potential. The tool ranks properties based on their position in the landscape and assesses their suitability for a range of MNES and MSES using vegetation mapping that identifies unranked regrowth, advanced regrowth, and remnant ecosystems from a vegetation base layer. This is driven by the species association with different regional ecosystems (REs). RE associations for each matter were determined based on the species ecological requirements and were consistent with the impact assessment process. The MCDS tool provides a consistent, transparent, and repeatable approach to assessing properties and identifying those that may offer the greatest offset potential from a desktop perspective. The highest-ranking properties can then be assessed through rapid and detailed field surveys to confirm their suitability. Detailed field-based assessments have been performed across each proposed offset property outlined in Appendix Q: Environmental Offset Delivery Strategy (EODS) including assessment of bio condition, habitat suitability assessments, ground truthed vegetation mapping as well as incidental and targeted flora and fauna survey.</p> <p>The Border to Gowrie Offset Program has contributed to and participated in comprehensive consultation process through involvement in general and targeted Community Consultative Committee (CCC) information sessions, community ecology workshops, as well as regular and recurring consultation with stakeholders including Local Government Authorities and other organisations involved in protection and land management initiatives such as Queensland Trust for Nature and Healthy Land and Water. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>The Border to Gowrie EODS provides a detailed risk assessment which includes costs and probability of success for both acquisition and management to achieve offset objectives. ARTC are looking to progress securing key offset properties with negotiations and further investigations underway. Progress to date directly addresses validated costings and probability of success (acquisition). If properties are to be directly acquired to secure environmental offsets for the Project, ARTC will negotiate with the respective property owners or their representatives in good faith, and any subsequent acquisitions or partial acquisitions, will consider current market values for similar land. Specific financial details on property acquisitions remain "Commercial in Confidence".</p> <p>For each property that is secured for an environmental offset, ARTC will develop a site-specific Offset Area Management Plan (OAMP) and it will be submitted for Commonwealth and State Government approval. Approval of each OAMP approval will be required prior to construction commencement. The goal of the OAMPs will be to achieve habitat quality gains at each offset site for each respective matter, while maximising landscape conservation outcomes by increasing resilience of self-sustaining communities and populations and improving connectivity within the region. Each OAMP will be developed generally in accordance with the Environmental Management Plan Guidelines (Commonwealth of Australia, 2014).</p> <p>All offset areas identified in the approved Border to Gowrie Environmental Offset Delivery Strategy and respective OAMP's will be legally secured under a legally binding mechanism. There are several options for legally securing an offset site, including an offset protection area under the EO Act, a voluntary declaration under the VM Act, a protected area under the NC Act, statutory covenants under the Land Title Act 1994 or provisions under the EPBC Act. All options will be considered, and the final instruments chosen will depend on the specific circumstances of each offset site. Due to the permanent nature of the impacts from the Project, legal security will be in perpetuity and the type of enduring covenants will be negotiated depending on the circumstances and matters to be protected for each offset site.</p> <p>Following the Ecology workshop held in November 2023, DCCEEW confirmed the Department does not require the offset costs to be included in the EIS, however the department will require the offset costs (outside the EIS is considered acceptable) in the circumstance where an indirect offset is to be proposed, and the direct offset costings influences the monetary Figure to be input as indirect offset. The Coordinator General has also confirmed that the detailed costings are only required in those circumstances where indirect offsets are being proposed.</p> <p>The Border to Gowrie EODS does not proposed indirect offset strategies for listed matters however acknowledge the requirement in the event that indirect offsets may be proposed in the future.</p>	<p>Chapter 11: Flora and Fauna</p> <p>Section 11.5, 11.6 and 11.7</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.10</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p> <p>Appendix Q: Environmental Offset Delivery Strategy</p>
238	238.0091	State Agency	Land Use and Tenure		The draft EIS does not adequately address the requirements of Section 11.76 of ToR, particularly impacts on existing uses of State land including State forest. The draft EIS does not provide sufficient detailed information to allow the department to properly consider the potential impacts of the proposed Project on State forests. The department notes that its correspondence dated 2/9/2020 has not been responded to by ARTC. Furthermore, the department also notes that correspondence from the Office of the Coordinator-General to ARTC dated 1/9/2020, which raised similar issues of inadequate detail regarding State forest revocation, consultation, and a number of other matters.	The draft EIS should provide the detailed design, route and impact information to enable proper consideration of draft EIS and the Project as a whole, and better consideration of the related State forest revocation proposals.	<p>Further information on the State forest revocation process is provided in Sections 8.5.1 of Chapter 8: Land Use and Tenure. In context of the EIS process, Ministerial in-principle approval for the State forest revocation is required to be obtained prior to the Office of Coordinator-General accepting the final EIS. The process for State Forest revocation is detailed in Chapter 3: Legislation and Project Approvals Process, Section 3.4.13.</p>	<p>Chapter 3: Legislation and Project Approvals Process</p> <p>Section 3.4.13</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p>
238	238.0092	State Agency	Flora and Fauna		The draft EIS states that the overarching Offset Strategy is to deliver a strategic, primarily land-based offset portfolio that would seek to deliver conservation outcome that improves/maintains viability of MSES etc. However, as above, as costings and likelihood of success of the Strategy's implementation has not been addressed nor provided, there appears to be a risk of the success of its implementation, which not only may impact on overall Project costs but also may have impacts on the environmental values the Strategy seeks to improve/maintain.	The draft EIS should provide researched costings and probability of success for implementing the Strategy, including detail of landholder consultation and/or previous sales data.	<p>Following the Ecology workshop held in November 2023, DCCEEW confirmed the Department does not require the offset costs to be included in the EIS, however the department will require the offset costs (outside the EIS is considered acceptable) in the circumstance where an indirect offset is to be proposed, and the direct offset costings influences the monetary Figure to be input as indirect offset. The Coordinator General has also confirmed that the detailed costings are only required in those circumstances where indirect offsets are being proposed.</p> <p>The Border to Gowrie EODS does not proposed indirect offset strategies for listed matters however acknowledge the requirement in the event that indirect offsets may be proposed in the future.</p>	<p>Appendix E: Consultation Report</p> <p>Section 5.1</p> <p>Section 5.10</p>
239	239.0001	Private	Flora and Fauna		Provision made for broad stakeholder consultation in the design and management planning of fauna movement corridors. Stakeholders likely to include but not be limited to GRC, TRC, First Peoples, Redleaf Environmental (who have done wildlife corridor mapping for at least the TRC region) and Southern Queensland Landscapes. Planning to include links to regional wildlife corridors and management to include weed and pest management.	Generic information only provided in this early stage.	<p>Since the submission of the draft EIS, ARTC has developed the following key document: Appendix P: Fauna Connectivity Strategy. This document will be a standalone appendix for the revised draft EIS and was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the pre-construction and construction, and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures for pest and weed management.</p> <p>The Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy) identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised draft Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy) proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have been prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>ARTC will continue to engage with key stakeholder groups including the Toowoomba and Goondiwindi Regional Councils, community, conservation and Indigenous groups during the detailed design stage.</p>	<p>Chapter 11: Flora and Fauna</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
239	239.0002	Private	Surface Water	construction water supply	The submitter raises the issue that the Rail Corridor is in close proximity to Macintyre Brook which may enable access to allocation water from Coolmunda Dam. Similarly northern Section proximity to the Condamine River may enable access to allocation water from Leslie Dam.	<p>Note (1) that if works are required to enable access to water from Macintyre Brook, consideration could be given to rehabilitation works linking to landholder efforts and possible Northern Basin funding to manage stock and other threats to high value aquatic ecosystems. Of iconic value here is mentioned by several landholders of Platypus in the Brook with some concern around reduced frequency of sightings in recent times. Note (2) that in the Condamine River the rail crosses between Lemon tree and Yarramalong weirs. These have been identified in Northern Basin Toolkit investigations as significant native fish movement barriers. ARTC could give consideration of contributing to fish passage works as Project environmental offset works.</p>	<p>ARTC recognises water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the detailed design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>Appendix S: Surface Water Quality Technical Report, Section 1.4.5 states:</p> <p>ARTC recognises that water sourcing and availability is critical to supporting the construction program for the Project. Sources of construction water will be finalised as the construction approach is refined during the detailed design stage of the Project (post-EIS). Through this process, refined water demand planning will be undertaken, including detailed contingency options, in the event that protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>The ultimate water sourcing strategy for the Project will be documented in a construction Water Plan, developed in consultation with local and state government representatives, as well as potential water suppliers. Further detail regarding water sources for the Project is outlined Appendix B5: Construction Water Requirements Report.</p> <p>An assessment of the suitability of each source will need to be made for each construction activity requiring water, based on the following considerations as outlined in Section 1.4.6 of Appendix S: Surface Water Quality Technical Report:</p> <ul style="list-style-type: none"> ▶ Available volume from identified source ▶ Legal access ▶ Volumetric requirement for the activity ▶ Water quality requirement for the activity ▶ Source location relative to the location of need. 	<p>Appendix B5: Construction Water Requirements</p> <p>Appendix S: Surface Water Quality Technical Report</p> <p>Section 1.4.5</p> <p>Section 1.4.6</p>
239	239.0003	Private	Cultural Heritage	Indigenous cultural heritage	The submitter states that p.32 proposed mitigation measures that seek the extinguishment of native title rights. This default approach does not respect First Nation Peoples and puts those who are struggling to rediscover and retain traditional knowledge and cultural history at a disadvantage.	Support First People in documenting attachments to country in the impacted areas and grant the same privileges to affected Peoples as will be granted to the Bigambul People in areas where they hold native title. Peoples to be consulted should include but may not be limited to Bigambul, Githabul, Giabul/Jarowair. Given recent interest and development of Aboriginal Ranger programs, establishment, support and/or utilisation of these programs in rail corridor maintenance, biodiversity corridor management and decommissioning works (landscaping and rehabilitation) should be considered.	As outlined in Chapter 19: Cultural Heritage, Section 19.3.3 and Table 19-20, indigenous cultural heritage will be managed under a Cultural Heritage Management Plan (CHMP). These have been developed between ARTC and the Bigambul People, Western Wakka Wakka people and the Endorsed Aboriginal Parties for the unclaimed area in 2018 (CLH017009 with Identification numbers 329, 330 and 331) and approved under the Aboriginal Cultural Heritage Act 2003. In developing the CHMPs, ARTC engaged with the relevant Aboriginal Parties (as defined under the ACHA) to establish methods for investigating indigenous cultural heritage, that may be affected by the Project.	<p>Chapter 19: Cultural Heritage</p> <p>Section 19.3.3</p> <p>Table 19-20</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
240	240.0005	Private	Social Impact Assessment		With the highway changes outside the submitters' house, they expect that access to the front entrance could become dangerous, with the numbers of heavy vehicles which travel this road. Many vehicles travel well over the town speed limits with no concern for the local people. They have personally experienced just how dangerous this is through a B-double losing control and putting a trailer through their shed, just missing their home and demolishing 4 cars parked under the shed. As a result they are constantly concerned with the speed of the heavy traffic causing extreme Anxiety and Mental stress.	There would be a need to clean a thoroughfare through property to permit safe front entrance and exit from rear of property. Need to provide safe parking at the front of the submitters' home for disability support workers at both entrance and exit if possible. Supply front gate opening.	ARTC notes that the reference design does not necessitate altering any access arrangements for this property. The reference design includes a proposal to extend the highway; however, the Section outside this property would be posted at 60 km/hr. ARTC notes there is back lane access to this property. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.	N/A
240	240.0006	Private	Surface Water		Concerns regarding proposed water drainage considerations upon building of both railway and highway. Insurance Liability Protection, if or when flooding occurs due to redevelopment of road and rail.	Ongoing Insurance Compensation for increased premiums on insurance policies regarding flood, should flood insurance increase as a result of the rail/road construction.	The Project's land requirements are detailed in the revised draft EIS Appendix F: Impacted Properties. The extent of these impacts will be confirmed during detailed design with compensation to be provided in accordance with the Acquisition of Land Act 1967 (Queensland). The impact of the Project on the existing flood regime will be compared against the flood impact objectives in Annexure A. Acceptable localised impacts with respect to flood sensitive receptors and land uses will ultimately be determined on a case-by-case basis with interaction with stakeholders/ landholders through the community engagement process using these objectives as guidance As noted in the Appendix E: Consultation Report Section 5.3, in June 2020, the Australian and Queensland governments established an Independent International Panel of Experts for Flood Studies (the Flood Panel) in Queensland to provide advice on the flood models and structural designs developed by ARTC for Inland Rail in Queensland. The Flood Panel released its draft report on 25 March 2021, and final report in October 2022. Following the release of the final report and as part of additional assessment and studies conducted for this revised draft EIS, ARTC has assessed all local catchments against the new Flood Impact Objectives (FIOs) and updated Chapter 14: Flooding and Geomorphology and Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 accordingly. The FIOs determine the acceptable parameters within which the Project can change or increase the existing flood conditions, including afflux, time of inundation, velocity, hazard and flow directions.	Chapter 14: Flooding and Geomorphology Appendix E: Consultation Report Section 5.3 Appendix F: Impacted Properties Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
240	240.0007	Private	Air Quality		construction and operational phases along with maintenance phases will result in ongoing dust, dirt and pollutants effecting the site. Water quality in tanks will be contaminated due to the pollutants from both dust and heavy metals from trains and heavy transport. Potential pollution of land, making growing of clean crops for personal consumption difficult if not impossible.	11.6.5 It is suggested to implement a Rainwater collection system, this should have first flush devices to divert potentially contaminated water off roof and away from tank. This should be installed prior to commencement of works. Implementation of filtration system on water tank with feed to home kitchen. It should also be noted that the Solar panels will be impacted by the increased dust and dirt especially during the construction phase, this will lead to a need for increased cleaning and maintenance fortnightly/ monthly. Evaporative cooler batters/ filters will need to be cleaned or replaced and due to increase in pollutants.	The construction and operation of the Project will result in emissions to air. However, the assessment of the construction works and operations stages has determined that the impact of air emissions to sensitive receptors, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures. Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). As discussed in Section 12.5.1 of Chapter 12: Air Quality, gaseous emissions (fumes) from construction vehicles are unlikely to present risk of significant impact. The assessment of construction has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. The significance of construction dust impacts for impacts to health and nuisance/ amenity will be low or negligible with the implementation of mitigation measures. On this basis, regular (fortnightly/ monthly) cleaning and maintenance of solar panels or evaporative cooler batters/ filters is not expected to be required (Chapter 12: Air Quality, Section 12.5.1). The operational air quality assessment determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in Chapter 12: Air Quality, Section 12.4.5) for all pollutants. In the dispersion model developed for the assessment of the operations stage in Appendix F of Appendix R: Air Quality Technical Report, the submitter's residence is represented by receptor R120. Further information on the results of the construction works and operations stage assessment on impacts to air quality are presented in Section 12.5 of Chapter 12: Air Quality. Section 12.6 Table 12-36 of Chapter 12: Air Quality presents the mitigation measures which have been recommended for the Project. These mitigation measures are to be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan, and, when implemented, impacts to sensitive receptors are not expected to be significant. In addition to assessing impacts on air quality at households, the assessment also investigated potential impacts to tank water quality during the operation of the Project (Section 12.5.2 of Chapter 12: Air Quality and Appendix R: Air Quality Technical Report, Section 5.3.7). This assessment was completed by predicting the deposition of pollutants of the roofs of residential dwellings within the study area. The concentration of pollutants in a residential water tank was then estimated assuming that all deposited matter was washed from the roof into a water tank. This assessment showed that tank water quality impacts from the Project would not be significant as pollutant concentrations would be well below the concentrations prescribed by the Australian Drinking Water Guidelines (National Health and Medical Research Council and National Resource Management Ministerial Council, 2022). Air pollution can impact crops and agriculture. The <i>Environmental Protection (Air) Policy 2019</i> (Qld) includes air quality objectives to protect these environmental values. However, the Project will not emit any pollutants (such as fluoride) for which air quality objectives are prescribed to protect agriculture values. The revised air quality assessment has investigated the potential for impacts to agricultural uses using assessment criteria adopted from scientific literature, and prescribed for the protection of ecosystems. Section 12.5.2 of Chapter 12: Air Quality and Appendix R: Air Quality Technical Report, Section 7.4, presents the assessment of impacts to agriculture. Based on the dispersion modelling undertaken for the assessment of the operations stage of the Project, air quality impacts to agricultural uses such as crops are not expected to be significant.	Chapter 12: Air Quality Section 12.4.5 Section 12.5.1 Section 12.5.2 Section 12.6 Table 12-36 Appendix R: Air Quality Technical Report Section 5.3.7 Section 7.4 Appendix F Chapter 24: Draft Outline Environmental Management Plan
240	240.0008	Private	Land Use and Tenure	Property Devaluation	Changes to the access of property and movement of highway to directly out front of his home will impact upon the value of his house, refer 7.2.2.1 Change in Land Tenure and Loss of Property. Impacts on accessibility to property. Adjusting to fencing and access. Access to the highway via the front entrance will be quite dangerous due to the traffic being free flowing and normally travelling over the recommended speeds. Due to extreme pain in the submitter's legs and back along with other disabilities he has support people attend him on a regular basis. It can be dangerous for his carers to park out the front of my home due to the heavy traffic. He expects that his carers will find it even more unsafe with changing the highway to park directly out the front of his home and with heavy traffic constantly moving at speeds in excess of the local speed limits.	1. Install electric gates for safer entrances. 2. Clean thoroughfare through property to permit safe front entrance and rear exit of property. 3. Need safe parking either at the front of his house. 4. Supply front/ rear gate opening. 5. Speed cameras for traffic coming into town to help slow them down. 6. Make it safer to enter and leave streets gateways and entrances. 7. Ensure there is a generous wide area allowed for parking out the front of homes to make it safer for the submitter's carers for pickup and drop off. 8. Help to make accessibility safe for all from both front and rear entrances.	The detailed design for the Project will be developed to ensure that legal access for private properties is maintained. ARTC will continue to consult with potentially impacted landowners through the detailed design and Pre-construction Activities and early works stages to develop and implement property-specific measures to avoid or minimise impacts that could affect property access. In cases where the acquisition of the portion of a property will cause land locked, commercially unviable and/or inaccessible parcels of land, ARTC will consider acquiring the unusable portion of the lot to avoid impacts to landowners and mitigate impacts to access. In cases where the severance of property impacts a landowner's access to transport routes or water sources, ARTC will install or reinstate necessary infrastructure to maintain continuity (Chapter 8: Land Use and Tenure, Section 8.6). The construction works and operations stage provision of suitable private property access will form a component of property-specific management agreements developed in consultation with landowners. Changes to individual property access onto and across properties may be offset by consolidating access in key locations, which may be facilitated through underpasses for stock and vehicles at appropriate locations. These solutions will be developed in consultation with affected landowners (Chapter 8: Land Use and Tenure, Section 8.6.3).	Chapter 8: Land Use and Tenure Section 8.6 Section 8.6.3
241	241.0001		Economics		The submitter is concerned about property devaluation.	The submitter wants higher compensation	The construction Authority for the Inland Rail Project in Queensland, will be the Qld Department of Transport and Main Roads (DTMR). DTMR will be responsible for all land acquisition and resumptions required for the construction of the Project. Compensation for loss of land and interests in land will be assessed in accordance with the <i>Acquisition of Land Act 1967</i> .	Chapter 18: Economics Section 18.9
241	241.0002	Private	Air Quality		The submitter is concerned about dust in manufacturing shed.	The submitter wants air conditioning facility	In the dispersion model developed for the assessment of the operations stage in Appendix F of Appendix R: Air Quality Technical Report, the landholder's dwelling has been represented by sensitive receptor R774. The construction and operation of the Project will result in emissions to air. However, the assessment of the construction works and operations stages has determined that the impact of air emissions to sensitive receptors, as a result of air emissions will not be significant with the inclusion of recommended mitigation measures. Construction dust emissions have been assessed for the potential to impact human health (airborne dust which can be inhaled) and cause nuisance or amenity impacts (deposited dust). The assessment of construction has considered the type of emission sources which will be present during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households) (Chapter 12: Air Quality, Section 12.5.1 and Appendix R: Air Quality Technical Report, Section 6.1). The assessment has also recommended mitigation measures to reduce construction dust emissions and minimise the potential for significant impacts. With the inclusion of the recommended mitigation measures, it is expected that the significance of construction dust impacts to health and nuisance/amenity will be low or negligible (Chapter 12: Air Quality, Section 12.6 and Appendix R: Air Quality Technical Report, Section 8.3). The operational air quality assessment determined that the adopted air quality goals can be achieved for all households (referred to as sensitive receptors in Chapter 12: Air Quality, Section 12.4.5) for all pollutants. Further information on results of the construction works and operations stage assessment on impacts to air quality is available in Section 12.5 of Chapter 12: Air Quality. Section 12.6 of the Chapter and Section 8.3 of Appendix R: Air Quality Technical Report present the mitigation measures which have been recommended for the Project. The recommended mitigation and management strategies will be included in the Construction Environmental Management Plan (CEMP) for the Project as described in Chapter 24: Draft Outline Environmental Management Plan, and, when implemented, impacts to sensitive receptors are not expected to be significant. Based on the results of the air quality assessment for the submitter's residence the installation of air conditioning at the submitter's property, including the manufacturing shed, is not required to mitigate air quality impacts.	Chapter 12: Air Quality Section 12.4.5 Section 12.5 Section 12.5.1 Section 12.6 Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Section 6.1 Section 8.3 Appendix F
241	241.0004	Private	Groundwater		The submitter is concerned about bore hole disruption as a result of the construction.	The submitter wants new hole near house.	As modelling has indicated drawdown will likely be isolated around deep cuts and only extend a maximum of 43 m horizontally, impacts to bores outside the groundwater investigation area are unlikely (Chapter 15: Groundwater, Section 15.6). Groundwater monitoring will continue throughout the construction works and part of operations stage of the Project to monitor for potential impacts as a result of the Project. Bores required to be decommissioned within the Project footprint or access restricted as a result of the Project will have 'make good' measures agreed in consultation with the landholder to ensure the agreed make-good solution is commensurate with the level of impact anticipated (see Section 15.7.4 of Chapter 15: Groundwater).	Chapter 15: Groundwater Section 15.6 Section 15.7.4
241	241.0005		Economics		The submitter is concerned about the cost of freight in construction for him to move goods and export.	The submitter wants compensation.	The Economic Impact Assessment (EIA) for the revised draft EIS recognises the impacts to local businesses during construction related to disruptions to traffic and transport. These impacts have been described qualitatively in the EIA. During construction, broader accessibility impacts due to changes in the surrounding road network may impact businesses. Roadworks, re-alignments and changes to travel distances may affect businesses through increases in travel times, resulting in increased operating costs. Disruptions to access during construction will be addressed through temporary diversions and onsite traffic management in consultation with the road managers, local community and landowners, where appropriate. It is out of scope of the EIA to quantify the impacts of traffic disruption on individual businesses. The construction Authority for the Inland Rail Project in Queensland, will be the Qld Department of Transport and Main Roads (DTMR). DTMR will be responsible for all land acquisition and resumptions required for the construction of the Project. Compensation for loss of land and interests in land will be assessed in accordance with the <i>Acquisition of Land Act 1967</i> .	Chapter 18: Economics Section 18.9.4
241	242.0001	Private - Brookstead	Noise and Vibration	operational rail noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals form alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakley to Pittsworth Road and Lochabar Road will mean that operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4. The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area. The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Section Chapter 24: Draft Outline Environmental Management Plan. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians; however, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment. Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13. It is identified that any receivers with 12 metres from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the detailed design stage to verify the screening assessment outcomes. ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Chapter 24: Draft Outline Environmental Management Plan Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
242	242.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsaleable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	<p>The Terms of Reference for the revised draft EIS requires the selected alignment to be assessment. The revised draft EIS is unable to provide advice on individual property values. Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in Appendix X: Social Impact Assessment, Section 7.1.9. As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to, e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to, e.g. employment centres.</p>	Appendix X: Social Impact Assessment Section 7.1.9
242	242.0005	Private - Brookstead	Stakeholder Engagement		ARTC has failed to engage with residents and inform them of the impacts of the train noise and vibration.	The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>Stakeholder engagement regarding noise and vibration is ongoing as ARTC continues to progress noise modelling, noise impact assessments and baseline monitoring as part of developing the revised draft EIS and design for the Project.</p> <p>In October 2019, ARTC held targeted engagement across the alignment on the draft reference design which included noise impacts of the Project. The engagement campaign delivered nine community information sessions attended by 193 stakeholders, individualised letters and phone calls to all identified sensitive receptors, two CCC meetings, a factsheet and an ENews story.</p> <p>Updated noise modelling has been undertaken as part of the updates for the revised draft EIS. This updated modelling will be supported by further consultation and will include the delivery of updating noise modelling information to all sensitive receptors which allows landowners surrounding the Project to understand potential noise impact levels, one on one meetings with sensitive receptors as required.</p> <p>This engagement will enable stakeholders to better understand the noise levels at their specific location, and ask questions about mitigation measures which will be further developed during detailed design.</p> <p>A summary of these tools is detailed in Appendix E: Consultation Report, Section 5.6. ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	Appendix E: Consultation Report Section 5.6
243	243.0001	Private - Brookstead	Noise and Vibration	operational rail noise	The Inland Rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals form alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakley to Pittsworth Road and Lochabar Road will mean that operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T.15.4.4. The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians; however, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13. It is identified that any receivers with 12 m from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the detailed design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Chapter 24: Draft Outline Environmental Management Plan Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17
243	243.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsaleable. Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	Review the entire alignment, this route is not suitable.	<p>The Terms of Reference for the revised draft EIS requires the selected alignment to be assessment. The revised draft EIS is unable to provide advice on individual property values. Property owners' concerns about the potential for impacts on property values would differ between properties with respect to, e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to, e.g. employment centres.</p>	Appendix X: Social Impact Assessment Section 7.1.9
243	243.0005	Private - Brookstead	Stakeholder Engagement		ARTC has failed to engage with residents and inform them of the impacts of the train noise and vibration.	The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>Stakeholder engagement regarding noise and vibration is ongoing as ARTC continues to progress noise modelling, noise impact assessments and baseline monitoring as part of developing the revised draft EIS and design for the Project.</p> <p>In October 2019, ARTC held targeted engagement across the alignment on the draft reference design which included noise impacts of the Project. The engagement campaign delivered nine community information sessions attended by 193 stakeholders, individualised letters and phone calls to all identified sensitive receptors, two CCC meetings, a factsheet and an ENews story.</p> <p>Updated noise modelling has been undertaken as part of the updates for the revised draft EIS. This updated modelling will be supported by an engagement plan and will include the delivery of updating noise modelling information to all sensitive receptors, one on one meetings with sensitive receptors as required.</p> <p>This engagement will enable stakeholders to better understand the noise levels at their specific location, and ask questions about mitigation measures which will be further developed during detailed design.</p> <p>A summary of these tools is detailed in Appendix E: Consultation Report, Section 5.6. ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	Appendix E: Consultation Report Section 5.6
244	244.0001	Private	Noise and Vibration	operational rail noise	The proposed route extends along the entire northern boundary of the township of Pittsworth consisting of a population of 3,294. The submitter raises concern that the close proximity of the rail line and township will severely impact all residences during the construction and operational phase. These will include vibration from rolling stock combined with additional signals and alarm bells.	Nil.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The DTMR Interim Guideline only requires an impact area of up to 150 metres from the railway.</p> <p>operational noise and vibration mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project and installed prior to Inland Rail operations commencing, where it is deemed reasonable and practicable. Compliance noise and vibration monitoring will be undertaken within 6 months of Project opening to ensure that mitigation measures are adequate. If the results of monitoring indicate additional exceedances of the operational noise and vibration criteria, then additional reasonable and practicable mitigation will be implemented in consultation with affected property owners.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns (refer to Section 16.10 of Chapter 16: Noise and Vibration, Railway Noise Assessment and Mitigation and Management Measures). The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
245	245.0001	Private	Flooding	Increase in peak water levels	The submitter opposes the Inland Rail Project going through Brookstead and Pittsworth. It is a rich agricultural land and has the potential of severe flooding. He also outlined that some wealthy influential and powerful people with financial gains are behind the proposed route.	Consider alternative route - Inglewood, as the area around it has large grass and tree area and not prone to flooding as the current proposed route.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1,000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.7) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined 2-km-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2021 (ARTC, 2022) document, where pages 92 to 103 relate specifically to Border to Gowrie. inlandrail.wppower.com/wp-content/uploads/2020/05/route-history-2006-2021-may-22.pdf.</p> <p>The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. To support design and construction of the Project, Construction Environmental Management Plans will be developed during detailed design. Ongoing consultation will continue during all future stages of the Project.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Panel) to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Panel draft and final reports are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au).</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The final report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the 4 Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> ▶ Providing additional information which addressed the queries raised ▶ Completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) ▶ Committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) ▶ Recommending that some issues raised are dealt with at detailed design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next steps:</p> <ul style="list-style-type: none"> ▶ ARTC has committed to implement the Panel's six recommendations outlined in the Final Report. ▶ ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. ▶ Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project approvals and corridor acquisition, detailed design, construction works, operations). ▶ A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. ▶ Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Revised draft EIS Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in revised draft EIS Appendix T1: Hydrology and Flooding Technical Report (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.4</p> <p>Appendix E: Consultation Report</p> <p>Appendix T1: Hydrology and Flooding Technical Report</p> <p>Appendix A</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
246	246.0001	Private	Flooding - Condamine River		The submitter is worried about flooding in the area of the proposed alignment.	<ol style="list-style-type: none"> Shift the inland rail away from flood plain. He gives maps to substantiate his argument and marks his proposed alternative route in black. Minimise road crossings. 	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the 2-km-wide study area to a focused area of investigation (varying between 150 metres (m) to 1,000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and State government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.7) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the <i>Corridor Options Report</i> (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement: 12.5 per cent Technical viability: 17 per cent Safety: 16.5 per cent Constructability: 12.5 per cent operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a 2-km-wide study area was to be progressed through Border to Gowrie phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined 2-km-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS, which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The broader Inland Rail route analysis is documented in the <i>Melbourne to Brisbane Inland Rail Route History 2006-2021</i> (ARTC, 2022) document, where pages 92 to 103 relate specifically to Border to Gowrie. inlandrail.wppenginepowered.com/wp-content/uploads/2020/05/route-history-2006-2021-may-22.pdf.</p> <p>The revised draft EIS revised reference design has been updated with consideration of feedback received across multiple forums with key stakeholders, impacted landowners and the broader community, and additional information request submitted by the Office of the Coordinator-General. Changes to the reference design since the draft EIS are summarised in Chapter 5: Project Description, Section 5.3.3. To support design and construction of the Project, Construction Environmental Management Plans will be developed during detailed design. Ongoing consultation will continue during all future stages of the Project.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Panel) to provide assurance to the public that the flood models and reference design developed by ARTC to meet national guidelines and industry best practice. The Panel draft and final reports are publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au).</p> <p>The Queensland and Australian governments have accepted the Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and State guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>The final report presents the outcomes of the Panel's review of the flood models and reference designs developed by ARTC for the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Project sections.</p> <p>ARTC has undertaken a substantial amount of work to identify existing flooding characteristics and to assess and mitigate potential impacts associated with the four Project sections. This work includes responding to the issues raised by the Panel in its respective draft reports. ARTC has responded to all issues raised in the draft reports, including:</p> <ul style="list-style-type: none"> Providing additional information that addressed the queries raised Completing additional work to address issues and committing to incorporating the revised results in future documentation (specifically revised draft EIS documentation) Committing to undertake additional works to address the Panel's comments and incorporating the results in future documentation (specifically revised draft EIS documentation) Recommending that some issues raised are dealt with at detailed design stage. <p>A detailed summary of these issues and ARTC's responses are presented in the Issues Management Register (IMR) in Appendix A to Appendix D in the final report.</p> <p>Next steps:</p> <ul style="list-style-type: none"> ARTC has committed to implement the Panel's six recommendations outlined in the Final Report. ARTC's flood models will be updated to meet the Panel's requirements including consideration of the 2022 flood event. Compliance and assurance against the Flood Panel's recommendations will be undertaken by ARTC, with Independent Verification process and continued peer reviews, at all stages of the Project (Project approvals and corridor acquisition, detailed design, construction works, operations). A Panel member is proposed to be engaged by the State to provide ongoing independent advice and assurance in relation to implementation of the Flood Panel's recommendations and actions. Community and stakeholder consultation will be scheduled upon the release of each Project section's revised Environmental Impact Statements. <p>Extracts from tmr.qld.gov.au/Projects/inland-rail/independent-panel-of-experts-for-flood-studies-in-queensland.</p> <p>Revised draft EIS Chapter 14: Flooding and Geomorphology, Section 14.4 states that a detailed summary of the Project-related issues and ARTC's responses are presented in the Issues Management Register in the final Expert Flood Panel Report (Appendix B). The Issues Management Register has been replicated in revised draft EIS Appendix T1: Hydrology and Flooding Technical Report (Appendix A) with the location where each comment has been addressed and response documented in the revised draft EIS identified.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Chapter 14: Flooding and Geomorphology</p> <p>Section 14.4</p> <p>Appendix E: Consultation Report</p> <p>Appendix T1: Hydrology and Flooding Technical Report</p> <p>Appendix A</p>
247	247.0001	Private	Flooding - Condamine River	Modelling	The submitter is concerned about the proposed rail route on the Condamine river floodplain. They have serious concerns about the flood modelling and hydrology assumptions that ARTC relied on. They rely on arguments put forward by the Independent Flood Panel Report which states that the technical report is not sufficiently comprehensive to meet the Panel's TOR. Similarly, they agree with the Toowoomba Regional Council submission that the draft EIS has not provided information regarding the expected increase in water level as a result of rail construction in an intense flood plain area. The submitter has explained to the Senate Committee members who visited their property that ARTC's computer modelled flood predictions are different to observed flood level on the Condamine River Floodplain. Despite these concerns being repeatedly raised ARTC has not addressed this concern.	Not approve the draft EIS ARTC should address concerns and information gaps include an alternative route in draft EIS and open it for public consultation and comments should examine the recommendations and findings of the Senate Inquiry and final report of the Flood Panel in assessing the draft EIS.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p>
247	247.0002	Private	Stakeholder Engagement		<ol style="list-style-type: none"> The submitter outlines that ARTC's approach to stakeholder engagement has been extraordinarily deficient with: No consultation objectives for Condamine Floodplain Poor conduct of ARTC staff during consultation Consultation has not informed Project design. No consultation on worker accommodation site selection or impacts Future consultation with affected individuals 	Nil.	<p>ARTC notes that Chapter 6: Stakeholder Engagement, Section 6 has been updated to include the consultation objectives for the Condamine floodplain. Significant consultation has been ongoing with landowners across the Condamine Floodplain including an independent review commissioned by the Southern Darling Downs Community Consultative Committee.</p> <p>ARTC employees are bound by a Code of Conduct and take complaints such as this seriously. Complaints regarding poor conduct of staff can be made through the complaints grievance process outlined on the Inland Rail webpage.</p> <p>The revised draft EIS Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report outlines the significant changes that have occurred to date due to ongoing engagement. Community engagement has influenced the development of the reference design. The Condamine floodplain crossing design has been updated to incorporate community feedback. Key changes include:</p> <ul style="list-style-type: none"> extending the proposed bridge over the North Branch by approximately 250 m north moving the proposed Yandilla rail bridge further south and combining with the proposed Grasstree Creek bridge increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. <p>ARTC has carried out additional community engagement and community information sessions in relation to the three proposed non-resident workforce accommodation facilities. Details of this consultation is provided in Appendix E: Consultation Report, Section 5.11.</p> <p>As noted in Appendix T1: Hydrology and Flooding, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing changes due to Inland Rail, as well as other relevant tasks.</p>	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.12</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
248	248.0001	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> The submitter highlights that the Brookstead Rural Fire Brigade shed, access for volunteers to this shed as well as access for a Rural Fire Brigade callout from the shed will be impacted by Inland Rail as the shed lies directly in the Inland Rail Project Footprint. However, the EIS does not acknowledge the Brookstead Rural Fire Brigade as an affected Emergency Service and fails to list the Brookstead Rural Fire Brigade Shed as a sensitive receptor. The submitter highlights that the Brookstead Rural Fire Brigade shed is omitted from the list of Emergency Services listed in the EIS and is also omitted from affected community groups. 	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Brookstead region needs to revisit decisions around rail and bridge design in the village of Brookstead, road access changes and the impact on residences, local businesses and local support groups, specifically the Brookstead Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landholders on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>ARTC notes that the QFES is included in the list of Queensland Government department and agencies in Section 2 of the Appendix E: Consultation Report. ARTC has, however, updated the SIA to include the Brookstead Rural Fire Brigade in the list of emergency services.</p> <p>The shed has not been included in the list of sensitive receptors because it does not meet the definition of such under the Environmental Protection (Noise) Policy 2019. ARTC notes that the reference design does not directly impact on the shed or access to the shed.</p> <p>Subsequent to the submission of the draft EIS, in December 2020, ARTC carried out further consultation with Brookstead stakeholders regarding proposed changes to the local road network and road/ rail interface.</p> <p>An independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>Design is an iterative process and the Project revised reference design prepared contains an appropriate level of detail for this stage of the design. ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p>	Appendix E: Consultation Report Section 2
248	248.0002	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> The submitter states that there has been no approach from ARTC to the Brookstead Rural Fire Brigade to discuss the impact of rail construction and operation and how this will impact on the local Emergency Services. The submitter highlights that the release of the EIS provides the first concrete evidence from ARTC about the location of the Brookstead Fire Brigade shed and facilities in the rail corridor as well as the expected impact on the facilities due to noise and vibration. The submitter expresses that the experience of the Brookstead region with ARTC is that they have not listened to community concerns or undertaken the stakeholder Engagement process claimed in Appendix C, EIS, specifically that the Brookstead Rural Fire Brigade has not been informed or consulted with in any way. The submitter expresses that the behaviour of ARTC, ignoring adversely affected community groups, especially volunteer Emergency Services, further erodes trust and credibility. 	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Brookstead region needs to revisit decisions around rail and bridge design in the village of Brookstead, road access changes and the impact on residences, local businesses and local support groups, specifically the Brookstead Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landholders on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>ARTC notes that a representative from the Brookstead Rural Fire Brigade was represented on the Inner Downs CCC and involved in discussions regarding the design. It further notes that it met with QFES representatives in January 2019 specifically to discuss design development, and has regular ongoing contact through the district disaster management coordination group.</p> <p>As detailed in Appendix T1: Hydrology and Flooding, building condition/dilapidation surveys will be undertaken at receptors that are expected to exceed the structural damage vibration criteria. ARTC notes that the revised reference design does not directly impact on the shed or access to the shed.</p> <p>Subsequent to the submission of the draft EIS, in December 2020, ARTC carried out further consultation with Brookstead stakeholders regarding proposed changes to the local road network and road/ rail interface. Engagement with emergency services has been ongoing. Maintaining access and minimising wait times at crossings for emergency services is a key concern for the community. As such, ARTC has engaged broadly to better understand the risks, refine reference design and ensure the Project minimises any impact to safety or emergency services. Engagement through local council representatives, community information sessions and CCC meetings has allowed community members and local road users to share information about how they currently use the existing road network and where they experience safety concerns.</p> <p>Appendix AC: Proponent Commitments notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>Appendix E: Consultation Report notes that the consultation approach for the Project is guided by the International Association of Public Participation (IAP2) engagement principles - also referred to as core values - which define the expectations and aspirations of the community engagement process. Design is an iterative process and the Project revised reference design prepared contains an appropriate level of detail for this stage of the design. As noted in Appendix T1: Hydrology and Flooding, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required.</p>	Chapter 6: Stakeholder Engagement Section 6.3 Section 6.6
248	248.0003	Private - Brookstead	Social Impact Assessment		<p>The level crossing design has not been completed, hence the EIS document does not provide the necessary detail for Brookstead Rural Fire Brigade to comment on social impacts and safety concerns in the local area.</p>	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Brookstead region needs to revisit decisions around rail and bridge design in the village of Brookstead, road access changes and the impact on residences, local businesses and local support groups, specifically the Brookstead Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landholders on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>ARTC notes that a representative from the Brookstead Rural Fire Brigade was represented on the Inner Downs CCC and involved in discussions regarding the design. It further notes that it met with QFES representatives in January 2019 specifically to discuss design development, and has regular ongoing contact through the district disaster management coordination group.</p> <p>Building condition/ dilapidation surveys will be undertaken at receptors that are expected to exceed the structural damage vibration criteria. ARTC notes that the reference design does not directly impact on the shed or access to the shed.</p> <p>Subsequent to the submission of the draft EIS, in December 2020, ARTC carried out further consultation with Brookstead stakeholders regarding proposed changes to the local road network and road/ rail interface. Engagement with emergency services has been ongoing. Maintaining access and minimising wait times at crossings for emergency services is a key concern for the community. As such, ARTC has engaged broadly to better understand the risks, refine reference design and ensure the Project minimises any impact to safety or emergency services. Engagement through local council representatives, community information sessions and CCC meetings has allowed community members and local road users to share information about how they currently use the existing road network and where they experience safety concerns.</p> <p>Chapter 24: Draft Outline Environmental Management Plan notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p> <p>Appendix E: Consultation Report notes that the consultation approach for the Project is guided by the IAP2 engagement principles, also referred to as core values, which define the expectations and aspirations of the community engagement process. Design is an iterative process and the Project reference design prepared contains an appropriate level of detail for this stage of the design. As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required.</p> <p>The Office of Coordinator-General determined that the EIS complied with the Terms of Reference, Appendix X: Social Impact Assessment includes a comprehensive and detailed assessment of impacts to emergency services.</p> <p>Departmental representatives from QFES, SES, QAS and QPS were involved in EIS consultation (see Appendix X: Social Impact Assessment, Section 8.2). The Project will invite the Brookstead Fire Brigade to participate in future consultation (see Appendix X: Social Impact Assessment, Section 8.5.2).</p> <p>Appendix X: Social Impact Assessment, Section 8.2 notes that local Councils will be consulted about the detailed design of road-rail interfaces during the detailed design stage.</p>	Appendix X: Social Impact Assessment Section 6.2 Section 8.2 Section 8.5.2 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report
249	249.0001	Commonwealth Government	MNES		<p>The proponent has not adequately addressed DAWE's previous comments on defining habitat and identifying residual significant impact.</p>	N/A	<p>Field surveys have now been undertaken for the Project, see Chapter 11: Flora and Fauna. The revised draft EIS has been updated with refined habitat mapping for Matters of National Environmental Significance (MNES) that aligns with the Commonwealth definitions of habitat, see Appendix O: Matters of National Environmental Significance Report. The detailed habitat mapping method is provided in Appendix J of Appendix O: Matters of National Environmental Significance Report.</p> <p>The revised draft EIS Chapter 11: Flora and Fauna, summarises assessment of the potential for significant residual impacts as a result of the Project on the EPBC Act controlling provisions of the Project. Assessment has been undertaken using the relevant criteria outlined in the Matters of National Environmental Significance: Significant impact guidelines 1.1–EPBC Act. Full assessment in accordance with the guidelines is provided in Appendix O: Matters of National Environmental Significance Report.</p>	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix O: Matters of National Environmental Significance Report Sections 3.4 and 7

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
249	249.0002	Commonwealth Government	MNES		Based on the information available in the latest draft EIS, the Department considers the proponent has still not adequately addressed Department's previous comments on defining habitat and identifying residual significant impact (see previous comments attached). The Department is therefore of the view that the draft EIS is inadequate to allow the Minister to determine the acceptability of the impacts of the proposed action on relevant MNES under the EPBC Act.	N/A	Further field assessments have been undertaken as part of the revised draft EIS to target threatened species, reassess the likelihood of occurrence and refine habitat mapping. The detailed methodologies employed in field surveys and habitat mapping are provided in the updated methodology Chapter 11: Flora and Fauna and Appendix O: Matters of National Environmental Significance Report. This additional information was then used to update and refine the Impact Assessments for significant residual impacts to Matters of National Environmental Significance (MNES) as provided in Chapter 11: Flora and Fauna. The detailed assessments for MNES are provided in Appendix O: Matters of National Environmental Significance Report.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix O: Matters of National Environmental Significance Report
249	249.0003	Commonwealth Government	MNES	Modelling	DAWE notes issues identified in the draft independent flood panel report relating to potential flooding impacts on habitat for listed threatened species and communities.	The draft EIS must include more information on how findings of the flood panel review impacts potential habitat within the Condamine floodplain and associated habitat for the MNES and how these impacts have been considered in the draft EIS.	Significant impact assessments have been undertaken in accordance with the EPBC Act Significant Impact Guideline 1.1, see Appendix O: Matters of National Environmental Significance Report. Flood impacts are considered as part of impact assessments for threatened ecological communities (TEC), threatened flora and fauna species. The revised draft Environmental Impact Statement (EIS) Chapter 11: Flora and Fauna discusses potential flooding impacts to Matters of State Environmental Significance (MSES) and Matters of National Environmental Significance (MNES). Impacts associated with flooding were assessed and three MNES flora species were determined to have a medium or high susceptibility and required detailed assessment, namely hairy-joint grass (<i>Arthraxon hispidus</i>), winged peppergrass (<i>Lepidium monoplacoides</i>), and small-flowered westringia (<i>Westringia parvifolia</i>). No other flora habitat, fauna habitat, or TECs were triggered for further assessment. Quantification of potential significant impacts for these three flora species represented relatively small areas of habitat outside of the Project footprint. Therefore, it is unlikely that there will be residual significant impacts on any of these three species as a result of changes to flood conditions.	Chapter 13: Surface Water Chapter 11: Flora and Fauna Appendix O: Matters of National Environmental Significance Report Section 11.3 and 11.5
249	249.0004	Commonwealth Government	MNES	Predictive habitat modelling	DAWE notes that ARTC is currently undertaking on-ground surveys.	DAWE strongly recommends use of the habitat descriptions in accordance with Commonwealth definitions to inform habitat assessments where the EPBC Act listed threatened species and ecological community are likely to be or will be impacted by the proposed action.	Habitat definitions were prepared for each threatened species with a known, likely or potential occurrence within the Project footprint, and were reviewed by species experts and underwent refinement where advised. These final habitat descriptions and mapping rules were utilised by Ausecology to produce species specific maps, which were reviewed by Ausecology, ERM, ARTC and/or species experts until all consultants were satisfied with the final mapping. The detailed habitat mapping methodology undertaken is provided in rdEIS Appendix L: Terrestrial and Aquatic Ecology Technical Report and rdEIS Appendix O: Matters of National Environmental Significance Report.	Appendix L: Terrestrial and Aquatic Ecology Technical Report Section 3.4 and Appendix G Appendix O: Matters of National Environmental Significance Report. Section 3.4 and Appendix F
249	249.0005	Commonwealth Government	MNES		A decision on whether or not the proposed action can be approved under the EPBC Act will occur following receipt of the State's assessment report.	If the Minister believes on reasonable grounds that she does not have enough information to make an informed decision on whether or not to approve the proposed action, the Minister may request further information during the assessment period.	Noted. ARTC acknowledges that a referral under the EPBC Act will be made to the Australian Government Minister for the Environment, following which a decision on whether or not the proposed action can be approved under the EPBC Act.	N/A
249	249.0006	Commonwealth Government	MNES		The current assessment is based on 1,800 m train lengths, however the draft EIS describes the action to include a corridor of sufficient width to accommodate future possible upgrades of the track to accommodate 3,600 m trains.	Clarify the extent of clearing in the draft EIS. Identify whether clearing and ecological surveys will be undertaken for passing loops for 1,800 m trains or 3,600 m trains.	The extent of clearing for the Project is limited to the development consistent with the proposal being assessed as described in Chapter 5: Project Description, Section 5.2 and 5.3, and does not include the provision for crossing loops to accommodate 3,600 m trains. The Project Description describes the operation of double stacked rollingstock up to 1,800 m long and does not include longer trains, which would be driven by market demand and subject to applicable approvals for the corresponding change including increased lengths of crossing loops and changes to the signalling systems. The proposal being assessed as part of the Border to Gowrie revised draft EIS including the extent of clearing associated with crossing loops does not include 3,600 m trains.	Chapter 5: Project Description Section 5.2 Section 5.3
249	249.0007	Commonwealth Government	MNES		The draft EIS states that pre-construction activities and early works will commence in 2021. Early works must not commence until the Commonwealth Minister for the Environment determines whether or not to approve the action.	Include what activities will form part of the early works and pre-construction activities and proposed timing for those activities. Clarify if early works form part of the referred action.	The submitters issue is noted and confirmed. Chapter 5: Project Description of the revised draft EIS has been updated to include details regarding staging activities. Staging activities are further detailed according to the respective technical requirements in each technical chapter, Chapters 8-22.	Chapter 5: Project Description Chapters 8-22
249	249.0008	Commonwealth Government	MNES	Survey effort/ field investigation data	The draft EIS indicates that the location of terrestrial and aquatic survey sites was dictated by land access agreements with landholders and that this has significantly reduced the areas that were accessible to ecological investigations.	Provide more information on how mapping was validated when access to identified habitats was not permitted and how it has been addressed to identify potential impact on MNES. The departments position regarding inability to access an area due to landholder requirements, is that if habitat is present, species presence is assumed, unless there is evidence to justify otherwise.	Additional ecology surveys were undertaken which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods of these surveys are detailed in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix A of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance.	Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix A Appendix O: Matters of National Environmental Significance Appendix A
249	249.0009	Commonwealth Government	MNES	Survey effort/ field investigation data	Figures 3.3 (a-d) include survey locations that are outside of the impact assessment area and targeted surveys have not been undertaken to confirm the presence/ absence of habitat or species. The draft EIS does not have enough information on how the habitat was defined during those previous investigations and whether survey methodologies were adequate in accordance with the Commonwealth/State guidelines.	The department considers that in the absence of onground survey data and for the purposes of assessment under the EPBC Act, the assessment should take a precautionary approach to identifying all potential habitat for protected matters and assume that listed species (or their habitat) and ecological communities are present within the action site until surveys are undertaken to confirm or rule out relevant habitats based on habitat type or quality. Provide previous field investigations including habitat assumptions and survey guidelines that were used to develop the predictive habitat modelling as part of the draft EIS.	Additional ecology surveys were undertaken which ground-truthed the Project disturbance footprint. The purpose of these assessments was to build upon the studies undertaken for the draft EIS, and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements. The methods of these surveys are detailed in Chapter 11: Flora and Fauna. The full survey reports are available in Appendix A of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix A Appendix O: Matters of National Environmental Significance Appendix A
249	249.0010	Commonwealth Government	MNES	Predictive habitat modelling	Section 5.2.1.15 states that potential hydrology and flooding changes are not expected to impact habitat for MNES species or TECs in more than a minor and transient manner. However the draft independent flood panel report noted multiple instances of increases in level occurring that are well in excess of the acceptable limits nominated as flood impact objectives. This report further identified issues with flood modelling, estimation of flows and impacts on local catchment areas. The department notes that the Project crosses the Condamine River Floodplain which provides habitat for several listed threatened species and communities, based on the conclusions of the draft independent flood panel report the department considers that there is potential that the draft EIS has not identified all potential impacts from flooding on MNES.	Further information is needed to justify conclusions reached on whether or not the proposed action will result in surface water and hydrology, and groundwater impacts on the Condamine River Floodplain and the habitat present for the MNES.	Significant impact assessments have been undertaken in accordance with the EPBC Act Significant Impact Guideline 1.1, see Appendix O: Matters of National Environmental Significance Report. Flood impacts are considered as part of impact assessments for threatened ecological communities (TEC), threatened flora and fauna species. The revised draft Environmental Impact Statement (EIS) Chapter 11: Flora and Fauna discusses potential flooding impacts to Matters of State Environmental Significance (MSES) and Matters of National Environmental Significance (MNES). Impacts associated with flooding were assessed and three MNES flora species were determined to have a medium or high susceptibility and required detailed assessment, namely hairy-joint grass (<i>Arthraxon hispidus</i>), winged peppergrass (<i>Lepidium monoplacoides</i>), and small-flowered westringia (<i>Westringia parvifolia</i>). No other flora habitat, fauna habitat, or TECs were triggered for further assessment. Quantification of potential significant impacts for these three flora species represented relatively small areas of habitat outside of the Project footprint. Therefore, it is unlikely that there will be residual significant impacts on any of these three species as a result of changes to flood conditions. The Project impacts on hydrology and flooding are further discussed in the revised draft EIS Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2.	Chapter 11: Flora and Fauna Sections 11.5 and 11.7 Chapter 13: Surface Water Appendix T1: Hydrology and Flooding Technical Report - Volume 1
249	249.0011	Commonwealth Government	MNES	Survey effort/ field investigation data	Mapping of threatened ecological communities is based on State based RE mapping and the draft EIS did not ground-truth these REs. Section 3.2.5 states that analogous vegetation communities (i.e. remnant and regrowth REs) were identified which were then used to spatially map out the extent of each of the identified TECs and Table 3.3. <ul style="list-style-type: none"> Identified TECs and the analogous REs (both remnant and high value regrowth) were used to map each of the TECs. The department notes that the commonwealth definition may include broader areas than regrowth and HVR vegetation. The draft further notes that key diagnostic characteristics and condition thresholds in the SPRAT and conservation advice for respective Commonwealth listed TECs have not been considered in identifying all TECs present within the Project disturbance footprint (please refer to department's comments previous comments attached). Section 4.3.1.3 states that Weeping myall woodlands and Poplar box woodlands TECs occur within the impact assessment area and Project footprint, however the occurrence of these communities could not be confirmed due to a lack of property access at the time of Project surveys. The draft EIS concludes that some TECs are unlikely to be impacted despite of their presence within the impact assessment area. For example, the Natural Grassland TEC and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland TEC are indicated as occurring within the impact assessment area but not within the Project footprint. The draft EIS must include on-ground surveys to confirm the TECs are not present within the Project footprint. Table 8.4 states that if the absence of this TEC is confirmed by surveys, the Project will not reduce the extent of an occurrence of this community. Please note: the threshold at which impacts must be considered and either mitigated or offset is where there is a non-trivial risk that the impact may occur. Uncertainty is not grounds for dismissing an impact nor for deeming the risk of its occurrence trivial. If the draft EIS cannot demonstrate that the risk of a particular impact is trivial, the department will need to assume the impact is likely to occur. 	Include an assessment against key diagnostic criteria and condition thresholds in the SPRAT and conservation advice for respective TECs in the draft EIS to confirm presence or absence of each ecological community. Please clarify whether key diagnostic characteristics and condition thresholds in the SPRAT and conservation advices for respective TECs were considered in identifying the extent and presence of all TECs within the Project disturbance footprint. Include a series of maps in the draft EIS showing: <ul style="list-style-type: none"> ground-truthed regional ecosystems including areas of respective REs The Project area and all surrounding environments (vegetated and non-vegetated), with the outline of the Project area encompassing all components (temporary as well as permanent); and Site topography and all known or anticipated drainage routes, for both the pre-construction and post-construction states of the Project site (including drainage from any offsite supporting infrastructure, such as access roads); All areas both on site and in the surrounding area comprising or potentially comprising a listed ecological community or habitat for a listed threatened species, regardless of the quality or intactness of those areas; All survey plots and locations (including but not limited to Bio Condition transects, the route of any site meanders, any trapping locations, etc.); A quantification in hectares of each area required to be mapped above. 	The revised draft Environmental Impact Statement (EIS) includes an assessment against the key diagnostic criteria and condition thresholds as defined in the SPRAT and conservation advice for relevant threatened ecological communities (TEC) see Appendix I of Appendix O: Matters of National Environmental Significance Report. Areas of ground-truthed TEC) are discussed in Appendix O: Matters of National Environmental Significance Report. A discussion of potential impacts to threatened ecological communities (TECs) is presented in Appendix O: Matters of National Environmental Significance Report.	Appendix O: Matters of National Environmental Significance Report Section 3.2, 4.2 and 7.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
249	249.0012	Commonwealth Government	MNES	Survey effort/ field investigation data	<p>The department considers that without demonstration that field surveys are adequate (i.e. conducted in accordance with recommended survey guidelines, and across the entire proposed action site), it is not appropriate to use occurrence records to determine (or exclude areas as) potential habitat for a species.</p> <ul style="list-style-type: none"> The department notes that 'potential habitat' has been defined on the basis of the presence of individuals or species records. However, the department notes that potential habitat should also consider the availability of suitable habitat (not only the presence of species) for foraging, breeding, dispersal etc activities by species. Habitat has not been defined in accordance with Commonwealth guidelines. Furthermore, habitat critical/ important population has not been defined in accordance with Commonwealth guidelines for some of the species. Please refer to department's previous comments for example (attached). In accordance with the EPBC Significant Impact Guidelines, habitat critical to the survival of the species refers to areas that are necessary:- for activities such as foraging, breeding, roosting, or dispersal- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators) - to maintain genetic diversity and long-term evolutionary development, or for the reintroduction of populations or recovery of the species or ecological community. As such, the department considers that there may be instances where the total habitat areas for protected matters may be greater than what is estimated in Table 4.4. Nonetheless, for the purposes of assessment under the EPBC Act, the 'total habitat areas' (where it met Commonwealth definition) presented in the draft EIS will be used as part of the department's assessment of impacts on protected matters until detailed on-ground surveys have been undertaken to confirm the presence or absence of species and communities against Commonwealth guidelines. Such habitat may be, but is not limited to, habitat identified in a recovery plan for the species or ecological community. And as previously advised, the Queensland Regional Ecosystems can be used to inform what is considered potential habitat however the extent of habitat present must be determined against relevant Commonwealth definitions (please see department's previous comments attached for examples). 	<p>Revise and update the draft EIS to include definition of habitat for impacted matters in accordance with Commonwealth definition. This definition must be considered during on-ground surveys. Review the draft EIS and provide references where local extinction has been used. The department notes that in the absence of a definition for critical habitat for the species important population has been defined by applying a 1 km buffer on known records that intersect potential habitat for several species. For example, <i>Macrozamia machinii</i>. The draft EIS states that Project may impact 77.22 ha of potential habitat, however Table 8.16 states that no habitat critical to the survival of the species has been identified (under the approach used for this assessment) and that there will be no significant impact to the species. The Conservation Advice for <i>Macrozamia machinii</i> states that there are eight known populations of <i>M. plurinervis</i> occurring near Inglewood, in the Darling Downs district of south-eastern Queensland. The Conservation Advice does not define important population, therefore all habitat must be considered. It is noted that the survey efforts did not identify any records. Where survey results have been used to determine absence/ presence of a species, detailed survey efforts must be included to enable the review of the adequacy of those survey efforts. Table 2.1 concluded some species unlikely to occur however does not include evidence/ justification for this conclusion. For example, Table 2.1 states that <i>Macrozamia conferta</i> is unlikely to occur, only known from very restricted small populations located outside the range of the Project. The Conservation Advice for <i>Macrozamia conferta</i> states that this species occurs within the Condamine (Queensland) Natural Resource Management region. Please provide more information whether the Project site is located within the Condamine (Queensland) Natural Resource Management region. The Conservation Advice further identifies three known population, where is the Project footprint in relation to these known population. The Conservation Advice further states that distribution of this species overlaps with the White Box-Yellow Box-Blakelys Red Gum Grassy Woodland and Derived Native Grassland EPBC Act-listed threatened ecological community. Where the draft EIS concluded that a species is unlikely to occur evidence/ justifications must be included in the draft EIS to support this conclusion. The draft EIS notes that this TEC is present within the impact assessment area. Please review and update the draft EIS accordingly. Table 4.4 included habitat within the Project footprint for several species that has not been considered as significantly impacted. For example, Grey-headed Flying-fox, Greater Glider, Tara Wattle, Grey Falcon (please see departments previous comments on some of these species). The department notes that Recovery Plan for Grey-headed Flying-fox came into effect on 19 March 2021 the draft EIS needs to update to address the recovery plan for the species.</p>	<p>Field surveys have now been undertaken for the Project, see Chapter 11: Flora and Fauna. The revised draft Environmental Impact Statement (EIS) has been updated with refined habitat mapping for MNES that aligns with the Commonwealth definitions of habitat, see Appendix O: Matters of National Environmental Significance Report. The detailed habitat mapping method is provided in Appendix J of Appendix O: Matters of National Environmental Significance Report.</p> <p>The revised draft EIS Chapter 11: Flora and Fauna, summarises assessment of the potential for significant residual impacts as a result of the Project on the EPBC Act controlling provisions of the Project. Assessment has been undertaken using the relevant criteria outlined in the Matters of National Environmental Significance: Significant impact guidelines 1.1– EPBC Act. Full assessment in accordance with the guidelines is provided in Appendix O: Matters of National Environmental Significance Report.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix O: Matters of National Environmental Significance Report</p>
249	249.0013	Commonwealth Government	MNES	Terrestrial flora	<p>Section 8.2.2 states that an initial assessment was undertaken to determine whether an 'important population' is present in the impact assessment area. Where an 'important population' is considered not to be present an assessment against the Significant impact guidelines was not undertaken. The department acknowledges that the significant impact criteria for vulnerable species in the EPBC Act Significant Impact Guidelines 1.1 includes a number of criteria that refer to 'important populations'. An 'important population' for vulnerable species is defined as a population that is necessary for a species' long-term survival and recovery, which may include populations identified as such in recovery plans. However, the department notes that only three out of the nine significant impact criteria for a vulnerable species refers to impacts on 'important populations'.</p>	<p>Please ensure that conclusions made about the presence/ absence of important populations are supported by evidence, best available scientific literature and/or survey data. For all listed species that may, or are likely to occur, within or adjacent the action area, please ensure that the draft EIS includes an assessment for these species. Whilst the department notes there may reasonable justification that some species are unlikely to be impacted by the proposed action. However, in the absence of on-ground survey data or sufficient information to demonstrate absence, the Department considers that, for the purposes of assessment under the EPBC Act, it is appropriate assume that those listed species are present and may be impacted.</p>	<p>Field surveys have now been undertaken for the Project, see Chapter 11: Flora and Fauna. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements.</p> <p>The revised draft Environmental Impact Statement (EIS) Chapter 11: Flora and Fauna, summarises assessment of the potential for significant residual impacts as a result of the Project on the EPBC Act controlling provisions of the Project. Assessment has been undertaken using the relevant criteria outlined in the Matters of National Environmental Significance: Significant impact guidelines 1.1– EPBC Act. Full assessment in accordance with the guidelines is provided in Appendix O: Matters of National Environmental Significance Report.</p>	<p>Chapter 11: Flora and Fauna Appendix O: Matters of National Environmental Significance Report</p>
249	249.0014	Commonwealth Government	MNES		<p>The MNES Chapter had concluded that significant impacts are unlikely on a number of species. This assessment was undertaken against the Significant Impact Guidelines, however there is not enough justification or evidence that supports the conclusion (please refer to Department's previous examples in attached comments). In the absence of on-ground survey data to confirm whether the species is present within the Project footprint and the extent of habitat available, the department considers that a precautionary approach should be taken in assessing potential impacts. Please note that residual significant impacts are the residual impacts following avoidance and mitigation measures. For example, if significant impacts are likely on 200 ha of habitat but impact on 50 ha is avoided through avoidance and mitigation, the residual significant impact is 150 ha.</p>	<p>As noted above, the total habitat areas will be considered as the area of potential habitat (where it met Commonwealth definition) to be impacted in the absence of detailed on-ground surveys. Therefore, Table 1.1 may not be an accurate reflection of the residual significant impacts on species. The department further notes that Table 1.1 considered significant residual impact on potential habitat for some species and considered only habitat critical for some species. As mentioned above, habitat critical has not been defined in accordance with the statutory documents in many cases therefore, there is a potential that the draft EIS has underestimated the impact on habitat present within the Project footprint.</p>	<p>Field surveys have now been undertaken for the Project, see Chapter 11: Flora and Fauna. The purpose of these assessments was to build upon the studies undertaken for the draft EIS and inform the detailed design and construction stage of the Project. The surveys determined the presence or likelihood of presence for species and/or ecological communities protected under relevant State and Commonwealth legislation and local government environmental planning requirements.</p> <p>Significant residual impact assessments have been revised based on field survey results. The revised draft Environmental Impact Statement (EIS) Chapter 11: Flora and Fauna, summarises assessment of the potential for significant residual impacts as a result of the Project on the EPBC Act controlling provisions of the Project. Assessment has been undertaken using the relevant criteria outlined in the Matters of National Environmental Significance: Significant impact guidelines 1.1– EPBC Act. Full assessment in accordance with the guidelines is provided in Appendix O: Matters of National Environmental Significance Report.</p> <p>Project impacts and the significant residual impact and habitat quality scoring per matter for the Border to Gowrie Project are detailed in Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix O: Matters of National Environmental Significance Report Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
249	249.0015	Commonwealth Government	MNES		<p>The draft EIS defines permanent impact that will last in excess of 21 years.</p>	<p>Please note that any potential listed threatened species and/or ecological communities that may occur and are potentially impacted in the Project area must be considered in the draft EIS regardless of the duration. The department strongly recommends removing this definition from the draft EIS.</p>	<p>The definition for permanent impact has been revised to in excess of 100 years in accordance with classifications provided in <i>Preparing an environmental impact statement: Guideline for proponents</i> (DSDI, 2024) as no such schedule is listed in the Commonwealth documentation.</p>	<p>Appendix O: Matters of National Environmental Significance Report</p>
249	249.0016	Commonwealth Government	MNES	Offsets	<p>The department notes that the offsets Strategy in the draft EIS refers to the residual significant impact summary for protected matters (Table 2 Potential MNES values impacted within Brigalow Belt and South East Queensland Bioregions).</p> <p>Please note that the assessment of impacts will be undertaken against relevant Commonwealth guidelines and definitions. Residual significant impacts as a result of this assessment may differ from the conclusions reached by ARTC in the report, and therefore offset requirements may be less or greater than what is predicted in the report</p>	<p>Please update the offsets strategy to address department's comments.</p>	<p>The updated Border to Gowrie Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie (EODS) has been developed to align with both Commonwealth and State environmental offset policies and guiding principles. The Border to Gowrie EODS has been developed to predict the likely offset obligations and requirements based on the predicted Significant Residual Impacts (SRI) for MNES and MSES in conjunction with habitat quality (impact and offset) and those relevant assessment metrics and calculations for each respective Commonwealth and State matter. A Project Habitat Quality Assessment Report is included in the revised draft EIS and will inform assessment methodologies for both Matters of National Environmental Significance (MNES) and Matters of State Environmental Significance (MSES) across impact and offset matters.</p>	<p>Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie</p>
250	250.0001	Private	Groundwater		<p>Inland Rail has advertised in a border magazine about supplying water from farmers and others up to 20 km. The submitter thinks that it is better to install bores on dams every 20 km or less on rail route. This way to cart water would then be there for future use.</p>	<p>Nil.</p>	<p>As part of ARTC's construction water planning process, construction water procurement studies are ongoing including options analysis (Chapter 5: Project Description, Section 5.6.24). Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements Report. As part of these works, estimates of water usage are being calculated.</p> <p>Currently the hierarchy of options for construction water supply prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. Should the Project access groundwater, it would be secured through private agreement, the licenced capacity of existing bores will not be exceeded. Flow and volume monitoring during extraction will be required for each bore, with extraction logs maintained (Chapter 15: Groundwater, Table 15-20 and Table 8.2 of Appendix U: Groundwater Technical Report).</p>	<p>Chapter 5: Project Description Section 5.6.24 Chapter 15: Groundwater Table 15-20 Appendix B5: Construction Water Requirements Report Appendix U: Groundwater Technical Report Table 8.2</p>
251	251.0001	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project. 	<p>The SIA Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
251	251.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during the detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
251	251.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>
251	251.0006	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides alot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on ARTC's approach to consultation is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6.2.4 and 6.2.5. All stakeholder interactions are recorded, categorised, and responded to within set timeframes as outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6 and Table 6.11.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, Section, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan, also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. <p>Brookstead and Pampas road and rail consultation:</p> <p>As detailed in Chapter 6: Stakeholder Engagement, Section 6.6, since this submission, ARTC has undertaken further consultation with the Brookstead and Pampas communities regarding road and rail design as outlined below:</p> <ul style="list-style-type: none"> ARTC hosted a community information session to discuss proposed changes to the Brookstead road network design, which was developed in conjunction with DTMR and TRC. The outcome of this engagement was not to progress with the closure of Madeleine Street East Intersection with the Gore Highway, as this was viewed as a main access road into Brookstead. ARTC hosted a community information session to discuss proposed changes to the Pampas road network design, to address road safety and technical constraints. Additional consultation also included four one-on-one meetings with stakeholders who could not attend the session. A detailed brochure was produced and distributed to the Pampas community, which resulted in phone calls and email enquiries from stakeholders. Reference design outcomes included changes to Fysh Road, Harris Road and the Gore Highway Intersection, which involved road realignments and a more optimal location of the proposed level crossing. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 4</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Section 6.4</p>
252	252.0001	Private - Brookstead	Flora and Fauna	Koala	<ul style="list-style-type: none"> The EIS fails to identify the extent and significance of the known habitat of Koalas that exist adjacent to the proposed IR corridor from Millmerran to Gowrie – B2G. The oldest residents of this district can confirm, that there have always been significant numbers of Koalas at Yarranlea. On either side of the proposed IR corridor, thriving communities of Koalas have been identified and noted by members of the Pittsworth Landcare groups, and interested individuals at numerous locations from Millmerran to Gowrie. Their findings have been sent to relevant groups to be officially recorded. 	<p>The draft EIS submitted by ARTC should be rejected on the grounds that it does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. A review should be made of the entire alignment of the Millmerran to Gowrie route to have it rerouted and avoid the possible destruction of a vulnerable/endangered species like the Koala.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report outlines that a review of existing literature and previous studies was conducted, which included gathering information on species diversity, abundance and distribution. Field surveys were also conducted to verify the presence of threatened species and ecological communities within the impact assessment area. As noted in Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report, a species-specific impact assessment approach has been developed to assess impacts on Koala populations for the Queensland sections of the Inland Rail Project. This approach guided the identification of Koala habitat within the Project footprint, refined habitat mapping, key threats and impacts associated with the Project to inform the significant impact assessment for the species. Mitigation measures and controls have been factored into the Project to reduce the impact on the affected species.</p> <p>Since the submission of the draft Environmental Impact Statement (EIS), ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the <i>Technical Ecological Assessment from Ausecology</i> (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan.</p> <p>In addition, ARTC has commenced two key research initiatives relating the Koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study of Koala genetics that focuses on population genetics and dietary analysis for Koalas across eight of the Inland Rail Projects. The purpose of this study to:</p> <ul style="list-style-type: none"> Increase baseline data on Koala population resilience and restoration requirements. Informs Koala conservation controls as required in conditions of approval. Informs fauna connectivity plans. Informs Koala offset management decisions. Contribute to Infrastructure Sustainability Council credits. 	<p>Chapter 11: Flora and Fauna</p> <p>Section 11.5, 11.6 and 11.7</p> <p>Appendix E: Consultation Report</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
252	252.0002	Private - Brookstead	Flora and Fauna	Mitigation measures	<ul style="list-style-type: none"> The submitter states that animals like Koalas have adapted to the vegetation species found in their individual territory and in other parts of Australia, it has been shown that attempts to relocate this species, have resulted in high mortality rates. The submitter states that the EIS has not identified mitigation measures that they would adopt to maintain the well-being of fauna impacted by the IR in this locality. 	The draft EIS submitted by ARTC should be rejected on the grounds that it does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. A review should be made of the entire alignment of the Millmerran to Gowrie route to have it rerouted and avoid the possible destruction of a vulnerable/ endangered species like the Koala.	<p>Revised draft EIS Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report provide strategies that have been used to minimise impacts through the design stage of the Project to avoid habitat for threatened species wherever possible. As the Project moves into the detailed design and construction stages, more focused and comprehensive ecological surveys will be undertaken. Along with informing the design and construction, these will include specific measures to avoid, mitigate, minimise impacts on Koala, along with ongoing monitoring activities (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report).</p> <p>Opportunities for the provision of fauna movement solutions have been identified in Appendix P: Fauna Connectivity Strategy. These include fencing strategies to guide species such as Koala to safe movement opportunities and will be refined through the detailed design process.</p> <p>Additional detailed mitigation measures, including measures to protect fauna, including specific measures for the Koala, during clearing of vegetation and habitat are addressed in Appendix N: Draft Fauna Management Plan and Appendix M: Draft Koala Management Plan.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
252	252.0003	Private - Brookstead	Flora and Fauna		<ul style="list-style-type: none"> The draft EIS submitted by ARTC should be rejected on the grounds that it does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. A review should be made of the entire alignment of the Millmerran to Gowrie route to have it rerouted and avoid the possible destruction of a vulnerable/ endangered species 	<ul style="list-style-type: none"> The submitter highlights that species such as the grey kangaroo and several different wallabies of the 9 species found on the Eastern Darling Downs, can be found in this location as well. Their movements noted are often seasonal. The submitter states that they have observed movements of the grey kangaroos and wallabies to and from the upland areas to the east and south of the Yarranlea siding, in the decades they have lived at 'Oak Park'. The submitter highlights that the uplands have been identified as an area of extreme cutting and filling by IR, which will destroy the landscape and vegetation features familiar to them. 	<p>Since the submission of the draft Environmental Impact Statement (EIS), ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages.</p> <p>Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species.</p> <p>Appendix P: Fauna Connectivity Strategy, Section 3 and Section 6 identify the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-Sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR, 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete; however, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>The Draft Koala Management Plan (DKMP) provided specific details how ARTC propose to deal with Koalas that are located within the construction footprint. Translocation of Koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. The standalone Draft Fauna Management Plan (Appendix N: Draft Fauna Management Plan) outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>Regarding the proposed solution, the preferred location for the proposed Project rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Section 2.8 and 2.9 of Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in revised draft EIS, Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Section 2.9</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 10</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
252	252.0004	Private - Brookstead	Flora and Fauna		<ul style="list-style-type: none"> The draft EIS submitted by ARTC should be rejected on the grounds that it does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. A review should be made of the entire alignment of the Millmerran to Gowrie route to have it rerouted and avoid the possible destruction of a vulnerable/ endangered species like the Koala. 	The submitter highlights the concern of severe impact by the bank to be built by Inland Rail from Longhurst Lane to the overpass over the Yarranlea Road which is a huge structure that will split the habitat and potentially cause severe soil degradation to farms in this area. The submitter states that it will affect the movement of particularly the Koala, but also the other native species.	<p>Since the submission of the draft Environmental Impact Statement (EIS), ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages.</p> <p>Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species.</p> <p>Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-Sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR, 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete; however, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>The Draft Koala Management Plan (DKMP) provided specific details how ARTC proposes to deal with Koalas that are located within the construction footprint. Translocation of Koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. The standalone Draft Fauna Management Plan (Appendix N: Draft Fauna Management Plan) outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>Regarding the proposed solution, the preferred location for the proposed Project rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Section 2.8 and 2.9 of Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in revised draft EIS, Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Section 2.9</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 10</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
252	252.0005	Private - Brookstead	Flora and Fauna	Mitigation measures	<ul style="list-style-type: none"> The draft EIS submitted by ARTC should be rejected on the grounds that it does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. A review should be made of the entire alignment of the Millmerran to Gowrie route to have it rerouted and avoid the possible destruction of a vulnerable/ endangered species like the Koala. 	The EIS does not include any reference to Exclusion fencing in this location.	<p>Since the submission of the draft Environmental Impact Statement (EIS), ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages.</p> <p>Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species.</p> <p>Appendix P: Fauna Connectivity Strategy identify the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-Sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR, 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete; however, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>The Draft Koala Management Plan (DKMP) provided specific details how ARTC proposes to deal with Koalas that are located within the construction footprint. Translocation of Koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. The standalone Draft Fauna Management Plan (Appendix N: Draft Fauna Management Plan) outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>Regarding the proposed solution, the preferred location for the proposed Project rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Section 2.8 and 2.9 of Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in revised draft EIS Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Section 2.9</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5.1</p> <p>Section 10</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
253	253.0001	Private - Brookstead	Noise and Vibration	operational rail noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals from alarm bells and train horns, resulting in daytime disruptions and night-time sleep disturbance. The height of structures over the Oakey to Pittsworth Road and Lochabar Road will mean that operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4. The 5 layouts of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic. Vibration of a train of the length and tonnage has not been quantified. Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment – Railway operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. See Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment – Railway operations, Section 11. It is identified that any receivers with 12 m from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the detailed design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various private health networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Chapter 24: Draft Outline Environmental Management Plan Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17</p>
253	253.0004	Private - Brookstead	Social Impact Assessment	Property Devaluation	Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsaleable. Families with young children living on the northern side of the town will be impacted by real estate devaluation.	Review the entire alignment, this route is not suitable.	<p>The Terms of Reference for the Border to Gowrie EIS require that the selected alignment is assessed.</p> <p>The revised draft EIS is unable to provide advice on individual property values. Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in revised draft EIS Appendix X: Social Impact Assessment, Section 7.1.9. As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to, e.g. employment centres.</p>	<p>Appendix X: Social Impact Assessment Section 7.1.9</p>
253	253.0005	Private - Brookstead	Stakeholder Engagement		ARTC has failed to engage with residents and inform them of the impacts of the train noise and vibration.	The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>Stakeholder engagement regarding noise and vibration is ongoing as ARTC continues to progress noise modelling, noise impact assessments and baseline monitoring as part of developing the revised draft EIS and design for the Project.</p> <p>In October 2019, ARTC held targeted engagement across the alignment on the draft reference design which included noise impacts of the Project. The engagement campaign delivered nine community information sessions attended by 193 stakeholders, individualised letters and phone calls to all identified sensitive receptors, two CCC meetings, a factsheet and an ENews story.</p> <p>Updated noise modelling has been undertaken as part of the updates for the revised draft EIS. This updated modelling will be supported by an engagement plan and will include the delivery of updating noise modelling information to all sensitive receptors and one on one meetings with sensitive receptors as required.</p> <p>This engagement will enable stakeholders to better understand the noise levels at their specific location, and ask questions about mitigation measures which will be further developed during detailed design.</p> <p>A summary of these tools is detailed in Appendix E: Consultation Report, Section 5. ARTC will continue to develop and refine the construction methodology to minimise noise and vibration impacts to sensitive receptors. The results of refined construction noise and vibration modelling will be communicated to potentially affected residents and occupants (sensitive receptors) where noise criteria is exceeded.</p>	<p>Appendix E: Consultation Report Section 5</p>
254	254.0001	Private - Brookstead	Flora and Fauna	Koala	<ul style="list-style-type: none"> The EIS fails to identify the extent and significance of the known habitat of Koalas that exist adjacent to the proposed IR corridor from Millmerran to Gowrie – B2G. Historically Koalas have been in the Yarranlea and it has been identified that on either side of the proposed corridor there is a significant Koala habitat, described as a thriving community. Recent surveys/studies of the identified habitat revealed that their movement from a possible breeding zone to other locations within the area proves the importance of the location to their survival as a species. The Pittsworth Landcare and observations of local residents, have identified the extent of their habitat and the significance of numbers residing in close proximity to the IR corridor and these findings have been forwarded to appropriate groups to be officially recorded for future reference. The submitter states that much of the Darling Downs is treeless plain therefore it is imperative that any Koala habitat is preserved, not destroyed by a proposed Project such as IR. 	<p>Failure to reroute the alignment of the Inland Rail will lead to the destruction of the habitat of the Koalas for some 100 kilometres of identified corridor through which the rail line is proposed. All attempts must be made to preserve the territories of this vulnerable/ endangered species. Development of this magnitude will surely lead to high mortality rates and their ultimate demise in the identified locality.</p>	<p>Appendix O: Matters of National Environmental Significance, of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements.</p> <p>Post the release of the draft Environmental Impact Statement (EIS), ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in EIS, Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 4.2 Section 5.1 Section 10 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
254	254.0002	Private - Brookstead	Flora and Fauna	Koala	The submitter highlights concern of severe impact posing threat to the survival of the vulnerable/endangered species; due to the length and breadth of the proposed bank from Longhurst Lane to Yarranlea over pass and into the uplands to the east, to accommodate the Inland Rail.	<p>Failure to reroute the alignment of the Inland Rail will lead to the destruction of the habitat of the Koalas for some 100 kilometres of identified corridor through which the rail line is proposed. All attempts must be made to preserve the territories of this vulnerable/ endangered species. Development of this magnitude will surely lead to high mortality rates and their ultimate demise in the identified locality.</p>	<p>Appendix O: Matters of National Environmental Significance of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the <i>Significant Impact Guidelines 1.1 - Matters of National Environmental Significance</i>. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements.</p> <p>Post the release of the draft Environmental Impact Statement (EIS), ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in EIS, Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
254	254.0003	Private - Brookstead	Noise and Vibration	Koala	The submitter highlights that Movement, noise of trains and the machinery during the construction phase, will severely impact on Koala movements. Because of the close proximity of the habitat to the designated corridor, there would also be destruction of the vegetation which provides their food, creating an unviable environment to ensure their survival. The submitter highlights that there will be severe impact on Koala's movements north and south of the line, whilst the noise will be extremely alien to the relatively quiet rural environment to which they are accustomed as a result of the 11 trains per day and 8 per night, predicted in 2026.	<p>Failure to reroute the alignment of the Inland Rail will lead to the destruction of the habitat of the Koalas for some 100 kilometres of identified corridor through which the rail line is proposed. All attempts must be made to preserve the territories of this vulnerable/endangered species. Development of this magnitude will surely lead to high mortality rates and their ultimate demise in the identified locality.</p>	<p>The revised draft EIS has been updated to assess the potential impacts to native fauna from noise and vibration generated during both construction works and operations stages.</p> <p>Chapter 16: Noise and Vibration, Section 16.8 states, the relevant noise and vibration codes of practice, standards and guidelines that apply to Inland Rail do not provide criteria, limits, or procedures to assess noise and vibration impacts to native fauna during the construction and operation of the Project.</p> <p>To provide a detailed assessment of noise and vibration impacts to fauna, an assessment which identified levels of expected noise and vibration, hearing range for multiple species and a review of behavioural responses available from published literature was carried out and is discussed in Section 5.2 of Appendix O: MNES Report and Section 16.8 of Chapter 16: Noise and Vibration.</p> <p>The review provided discussion on the amplitude (loudness), duration (pulse) and intensity (dB) characteristics of construction and operational noise and ground-borne vibration to describe how such emissions could impact native fauna. The assessment determined that, whilst noise and vibration can be a source of possible impact, the effects of any impacts were not significant due to the low duration and intensity of the noise. Refer to Chapter 16: Noise and Vibration, Section 16.8 and Chapter 11: Flora and Fauna, Section 11.5 and Section 11.6.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 Chapter 16: Noise and Vibration Section 16.8 Appendix O: MNES Report Section 5.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
254	254.0004	Private - Brookstead	Flora and Fauna	Mitigation measures	<ul style="list-style-type: none"> The submitter highlights that the relocation of Koalas cannot be done without causing severe mortality, so any proposal to use offsets as a mitigation measure would not be a viable option. The submitter highlights that in many instances a site for relocation would be many kilometres from their existing ecosystems and such attempts at relocation in other parts of Australia have resulted in high mortality rates to this vulnerable species. The submitter states that ARTC fails to identify the details of the design of structure that they contend would facilitate their movement in the EIS. The submitter highlights that wild-life carers, express the importance of native fauna returning to its own territory and that the ecosystem of the Yarranlea area and other sites along the route from Millmeran to Gowrie in the B2G section, contains a diversity of vegetation that provides food to which Koalas have adapted, proving the importance of the unique biodiversity of their territory. 	Failure to reroute the alignment of the Inland Rail will lead to the destruction of the habitat of the Koalas for some 100 kilometres of identified corridor through which the rail line is proposed. All attempts must be made to preserve the territories of this vulnerable/ endangered species. Development of this magnitude will surely lead to high mortality rates and their ultimate demise in the identified locality.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. The Draft Outline Environmental Management Plan (Chapter 24: Draft Outline Environmental Management Plan) include management and mitigation measures to protect vulnerable and endangered species.</p> <p>Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR, 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete; however, five different mitigation scenarios have been proposed and evaluated as part of the revised Fauna Connectivity Strategy (Appendix P: Fauna Connectivity Strategy).</p> <p>The Draft Koala Management Plan (DKMP) provided specific details on how ARTC proposes to deal with Koalas that are located within the construction footprint. Translocation of Koalas to new areas will not be used as a preferred strategy. Additional management and mitigation measures are outlined in Chapter 24: Draft Outline Environmental Management Plan. The standalone Draft Fauna Management Plan (Appendix N: Draft Fauna Management Plan) outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.</p> <p>Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA), including detailed environmental considerations. <p>As described in Chapter 2: Project Rationale, Section 2.8 and 2.9 of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
254	254.0005	Private - Brookstead	Flora and Fauna	Koala	The submitter states that ARTC lacks credibility with respect to the statement in the EIS that cleared land for agricultural and pastoral purposes has led to the situation where fauna like Koala have vacated the area and the insinuation that the rail line will not make things worse.	Failure to reroute the alignment of the Inland Rail will lead to the destruction of the habitat of the Koalas for some 100 kilometres of identified corridor through which the rail line is proposed. All attempts must be made to preserve the territories of this vulnerable/ endangered species. Development of this magnitude will surely lead to high mortality rates and their ultimate demise in the identified locality.	<p>Notwithstanding that the preferred location for the proposed Border to Gowrie rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community (Chapter 2: Project Rationale, Section 2.8 of the revised draft EIS), since the draft EIS, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p>	<p>Chapter 2: Project Rationale Section 2.8 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy</p>
256	256.0001				Description of the identified bushfire hazard areas within the area of impacts assessment, including potential future hazard based on SPP IMS BPA map. Summary of potential impacts, mitigation measures, risk assessment and residual risk management sections.	Measures are reasonable, identifying potential impacts and mitigation measures, including the approach to reference design and consultation regarding restrictions/ disruptions to access.	ARTC acknowledges the submitters feedback and has carried information through to the revised draft EIS.	N/A
256	256.0002				Services will use a combination of public road networks and private access while responding. Additionally, complementary estate management and response activities conducted by QPWS and QFES and other entities (hazard reduction burning, back burning etc) rely on trail networks in effected areas - Whetstone and Bringally State Forests. Potential disruptive impacts to this infrastructure have been addressed through an impact assessment and reference design for the Project to maintain connectivity across estates and to essential public and private roads. At location where level crossings of the rail alignment are provided, wait times of 199 seconds may be experienced, during train passage. This may result in increase in emergency response times in localised instances.	QFES South West Regional leadership team met with ARTC Project director 2021. Matters discussed included impacts on the townships of Goondowindi and Yelarbon. During the construction stage, a worker's camp will be located outside the town of Yelarbon and QFES will be reviewing emergency response procedures for the camp. The SES regional manager has attended a number of consultation meetings regarding Inland Rail and any matters about flooding, access etc have been raised at these forums. The proposed rail line is also 70 metres to the east of the Pampas Rural Fire Brigade. Members of the brigade have raised concerns about vibration and noise from the trains affecting volunteers who may be in the station at the time.	<p>An assessment of potential delays to road traffic at level crossing was undertaken as detailed in EIS Appendix AA: Traffic Impact Assessment, Section 5.8 and 5.9. The modelling undertaken within this assessment provides an accurate representation of the impacts to vehicles, using traffic vehicle numbers and the calculated wait times for specific level crossings.</p> <p>All active level crossings have been analysed in the peak periods, accounting for the individually calculated wait times, in order to determine queue lengths and resultant impacts to traffic. Table 5.69 in Appendix AA: Traffic Impact Assessment provides the individual wait times for the level crossing locations along the alignment. The wait times determined for each individual level crossing were calculated based on;</p> <ul style="list-style-type: none"> Level crossing specific operating speeds (up to maximum design speed of 115 km/hr). The operating speed is impacted by topography and curvature of the alignment Time taken for the train to cross the level crossing Distance from train crossing loops and hence time taken for the train to accelerate from standstill. Train length Boom gate and signal operating times. <p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction and operation, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Project's proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>Appropriate access and egress solutions throughout Whetstone and Bringally State Forests will be incorporated into the design and continued access will be allowed for in the construction methodology.</p> <p>ARTC has taken feedback from stakeholders, including the Pampas Rural Fire Brigade, from previous information sessions. Consultation with the community and relevant government agencies (inc. emergency services) will continue through the detailed design and construction planning process to ensure that safety concerns and issues are addressed. ARTC will continue to work collaboratively with DTMR and local councils as detailed design progresses regarding the proposed level crossing design solution and any road closures either permanently or temporarily. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet/.</p> <p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during both construction and railway operations. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessments have identified the Pampas Rural Fire Brigade as a sensitive receptor for noise and vibration and applied noise criteria to assess potential impacts. Where potential impacts have been identified, the development and implementation of mitigation measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p>	<p>Appendix AA: Traffic Impact Assessment Section 5.8 Section 5.9 Table 5.69 Appendix E: Consultation Report Section 5.6</p>
256	256.0003				Potential increase in Bushfire hazard through the rehabilitation of any proposed environmental offset delivery areas.	A bushfire management plan should be developed as part of the offset delivery plans.	<p>Bushfire prevention and response procedures will be incorporated into the CEMP to reduce the likelihood and impact of bushfires ignited or exacerbated by the Project. This will include the provision and positioning of appropriate fire-extinguishing equipment.</p> <p>With respect to the earthworks areas associated with the permanent and temporary development footprints, the Inland Rail will be developed in the detailed design stage. The plan will take into consideration operational rail corridor design to be free of woody vegetation, thereby acting as a potential firebreak in bushfire risk areas, e.g. Whetstone and Bringally State Forests. This aspect of the design will be supported by consultation with DAF to ensure sufficient access is available for emergency access and firefighting activities.</p> <p>This strategy will be carried out throughout all stages of the Project, thus having regard to operational requirements, as well as impact management requirements such as erosion control, overland flow and water quality management, bushfire hazards, and fauna connectivity (see Chapter 24: Draft Outline Environmental Management Plan).</p>	Chapter 24: Draft Outline Environmental Management Plan
257	257.0001		Economics		The Project's economic impact assessment does not address TOR items 11.21(e) and 11.141. The assessment of the Project's impact on the agricultural industry does not consider the value of individual commodities produced per lot or the value-added activities which contribute to the gross value of agricultural production in the region. The dEIS suggests an assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design.	<p>The CG should:</p> <ol style="list-style-type: none"> not accept the draft EIS as the final EIS request additional information from ARTC to be included in a revised draft EIS to be released for public comment the requested additional information in the revised draft EIS to be released for public comment should include: <ul style="list-style-type: none"> a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government. 	<p>In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates in the revised draft EIS, including to the calculated potential loss for rural communities. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 percent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year.</p> <p>As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the detailed design stage to develop measures to mitigate impacts including:</p> <ul style="list-style-type: none"> Direct impacts on properties, e.g. severance and loss of productive land Impacts on property accesses and connectivity, including the location of level crossings on private roads Impacts on the movement of stock, water, produce and equipment. <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports/).</p> <p>Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report.</p> <p>In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 14.4 of Chapter 14: Flooding and Geomorphology. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69i57j931j0j4&sourceid=ch.</p>	<p>Chapter 14: Flooding and Geomorphology Section 14.4 Chapter 18: Economics Section 18.9.1 Section 18.9.4 Section 18.12 Appendix Y: Economic Impact Assessment Section 5.5</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
258	258.0001		Economics		The Project's economic impact assessment does not address TOR items 11.21(e) and 11.141. The assessment of the Project's impact on the agricultural industry does not consider the value of individual commodities produced per lot or the value-added activities which contribute to the gross value of agricultural production in the region. The dEIS suggests an assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design.	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The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports). 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Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
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Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
286	286.0001		Economics		The Project's economic impact assessment does not address TOR items 11.21(e) and 11.141. The assessment of the Project's impact on the agricultural industry does not consider the value of individual commodities produced per lot or the value-added activities which contribute to the gross value of agricultural production in the region. The dEIS suggests an assessment of the composition of agricultural production by lot and commodity may be undertaken following detailed design.	The CG should: 1. not accept the draft EIS as the final EIS 2. request additional information from ARTC to be included in a revised draft EIS to be released for public comment 3. the requested additional information in the revised draft EIS to be released for public comment should include: a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government.	In response to public consultation, ARTC has made a number of updates to the revised draft EIS, including updates to the Project alignment. This has resulted in a number of updates in the revised draft EIS, including to the calculated potential loss for rural communities. The revised draft Appendix Y: Economic Impact Assessment, Section 5.5 outlines that overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. As outlined in the mitigation measures, ARTC will continue to consult with farmers, graziers and owners of agricultural businesses which are directly affected or adjacent to the Project footprint during the detailed design stage to develop measures to mitigate impacts including: <ul style="list-style-type: none">Direct impacts on properties, e.g. severance and loss of productive landImpacts on property accesses and connectivity, including the location of level crossings on private roadsImpacts on the movement of stock, water, produce and equipment. Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports). Following the Senate Inquiry into the management of Inland Rail by ARTC and the Commonwealth Government, the Rural and Regional Affairs and Transport References Committee released its final report on Wednesday 11 August 2021. ARTC provided full cooperation to the Inquiry since it was announced in September 2019, and will continue to work closely with the Government to address the recommendations of the report. In June 2020 the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies (the Independent Panel), to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice as outlined in Section 14.4 of Chapter 14: Flooding and Geomorphology. The Panel was to provide finalised reports and recommendations to the Joint Working Group for review. Both levels of made a commitment that both draft and final reports would be made publicly available here: Independent panel of experts for flood studies in Queensland Department of Transport and Main Roads (tmr.qld.gov.au). In October 2022, the Queensland and Australian governments have accepted Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice, adequately identify and mitigate flood risks and are fit-for-purpose. Refer to: google.com/search?q=independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&rlz=1C1GCEB_enAU1015AU1015&oeq=Independent+panel+of+experts+for+flood+studies+in+Queensland+final+report&aqs=chrome..69l57j931j0j4&sourceid=ch .	Chapter 14: Flooding and Geomorphology Section 14.4 Chapter 18: Economics Section 18.9.1 Section 18.9.4 Section 18.12 Appendix Y: Economic Impact Assessment Section 5.5
287	287.0001	DA Hall employee proforma	Flooding	Flood immunity	The Project's flood impact assessment does not address TOR items 11.64 and 11.68. The flood panel's draft report confirms that existing culverts are missing from the flood model, which may affect the results of modelling the impact on frequent flood events. Furthermore, the submitter has not been consulted by ARTC as a directly affected stakeholder who uses the Gore Highway to travel to work.	The CG should: 1. not accept the draft EIS as the final EIS 2. request additional information from ARTC to be included in a revised draft EIS to be released for public comment 3. the requested additional information in the revised draft EIS to be released for public comment should include: a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government.	Matters raised by the Expert Flood Panel in the International Panel of Experts for Flood Studies of Inland Rail in Queensland - Final Report, dated 6 September 2022 have been addressed in Sections 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Expert Flood Panel's 'Issues Management Register' has been included in Sub-Appendix A of Appendix T1: Hydrology and Flooding Technical Report - Volume 1, with a statement against each comment demonstrating where ARTC has addressed these issues within the revised documentation. The impact assessment documented in both Chapter 14: Flooding and Geomorphology (Section 14.8) and Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 through to 17) has been updated on a catchment by catchment basis to account for comments made by the Expert Flood Panel as well as incorporating revised Flood Impact Objectives (FIO) developed in consultation with the Expert Flood Panel. Mitigation measures have been provided against each FIO exceedance. Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages. Details regarding the stakeholder and community sessions undertaken are documented in Appendix E: Consultation Report, and the consultation process to inform the hydrology and flooding assessment is described in Section 14.5 of Chapter 14: Flooding and Geomorphology. Section 14.4 also includes a summary of consultation undertaken with directly impacted landholders in Oct/Nov 2022, prior to the second public release of the EIS for consultation. The Oct/Nov 2022 consultation campaign covered the following topics: <ul style="list-style-type: none">Project update and timingFlooding and hydrology information that will be covered in the revised draft EISOutline of what Flood Impact Objectives are, how it's applied and exceedances calculated, and what it means if there is an exceedanceA summary of property-specific FIO exceedances, and potential associated impacts (specific to the landholder consulted with)Discussions with landholders regarding how areas affected by FIO exceedances are currently being used, and what flood sensitive receptors might be impactedPossible mitigation measuresExamples of mitigation measuresARTC's commitment to continue working with affected landholders to further mitigate FIO exceedances during the next design stages. Section 14.5 also summarises the feedback received from the one-on-one meetings that will be fed back into the detailed design process. The process to determine site-specific mitigation measures during the detailed design stage is outlined in Section 14.9.1 of Chapter 14: Flooding and Geomorphology, supported by ARTC's Flooding & Hydrology Mitigation Framework, which illustrates a four-step mitigation approach: (1) Design development and refinement, (2) Design treatments, (3) Property treatments and (4) Monitor. To demonstrate the effectiveness of proposed mitigation measures, a representative sample of culvert sites which currently experience a range of FIO exceedances, including afflux, time of inundation, velocity and hazard, were selected and TUFLOW simulations conducted at these locations with a varying degree of mitigation applied. The outcomes of this assessment are detailed in Section 22.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Chapter 14: Flooding and Geomorphology Section 14.5 Section 14.8 Section 14.9.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 5 - 17 Section 22.3 Appendix A
288	288.0001	DA Hall employee proforma	Flooding	Flood immunity	The Project's flood impact assessment does not address TOR items 11.64 and 11.68. The flood panel's draft report confirms that existing culverts are missing from the flood model, which may affect the results of modelling the impact on frequent flood events. Furthermore, the submitter has not been consulted by ARTC as a directly affected stakeholder who uses the Gore Highway to travel to work.	The CG should: 1. not accept the draft EIS as the final EIS 2. request additional information from ARTC to be included in a revised draft EIS to be released for public comment 3. the requested additional information in the revised draft EIS to be released for public comment should include: a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government.	The revised draft EIS has been updated with additional information based on public submission on the draft EIS and to address additional requirements from the Office of Coordinator-General Request for Information. Updated documentation with respect to Flooding and Hydrology can be found in Chapter 14: Flooding and Geomorphology and Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2. The revised draft EIS is focused on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Section 2.8 of Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: infrastructure.gov.au/infrastructure-transport-vehicles/rail/inland-rail . The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.6 and 8.6 of the revised draft EIS.	Chapter 2: Project Rationale Section 2.8 Section 2.9.3 Chapter 14: Flooding and Geomorphology Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
289	289.0001	DA Hall employee proforma	Flooding	Flood immunity	The Project's flood impact assessment does not address TOR items 11.64 and 11.68. The flood panel's draft report confirms that existing culverts are missing from the flood model, which may affect the results of modelling the impact on frequent flood events. Furthermore, the submitter has not been consulted by ARTC as a directly affected stakeholder who uses the Gore Highway to travel to work.	The CG should: 1. not accept the draft EIS as the final EIS 2. request additional information from ARTC to be included in a revised draft EIS to be released for public comment 3. the requested additional information in the revised draft EIS to be released for public comment should include: a) detailed analysis of the 'forestry route' alternatives - via Cecil Plains to join the existing QR line west of Kingsthorpe and via Cecil Plains to Mount Tyson, and then via a Greenfields route to join the reference design route near Wellcamp b) a detailed analysis of the impact on the agricultural sector, rather than the 'indicate estimate only' c) require updated flood modelling to address issues identified in the Flood Panel draft report, its final report, as well as the findings and recommendations of the Senate Inquiry into Management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government.	The revised draft EIS has been updated with additional information based on public submission on the draft EIS and to address additional requirements from the Office of Coordinator-General Request for Information. Updated documentation with respect to Flooding and Hydrology can be found in Chapter 14: Flooding and Geomorphology and Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2. The revised draft EIS is focused on the chosen alignment selected by the Australian Government. The chosen rail alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Section 2.8 of Chapter 2: Project Rationale. Section 2.9.3 details the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: infrastructure.gov.au/infrastructure-transport-vehicles/rail/inland-rail . The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.6 and 8.6 of the revised draft EIS.	Chapter 2: Project Rationale Section 2.8 Section 2.9.3 Chapter 14: Flooding and Geomorphology Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
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Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
001f	001f.0001	Private	Groundwater		The impacts of ground water from cut and fill activities are well known. These activities upset the natural flow of water and disrupt both the recharge of the underground systems and the water levels in existing bores. The Inner Downs is very dependent on bores as the black soil is porous resulting in dams not being a viable water storage option as they won't hold water. ARTC has stated that the inland rail cut and fill will dissect the water table.	Nil.	Land use change (rail footprint) is not likely to influence recharge based on the area of the Project footprint related to the aquifer. Ongoing monitoring will confirm and assess natural groundwater fluctuation (recharge to the aquifer). As part of the revised draft EIS, predictive groundwater models were developed to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the deep cuts. Modelling results in the revised draft EIS indicate only localised drawdown around the vicinity of deep cuts that intercept groundwater, with a predicted maximum extent of drawdown extending up to 43 m from the rail centreline. Modelling indicates impact to be wholly contained within the Project footprint, with no regional groundwater drawdown/ wider impact on the aquifer as a result of the Project. For more information, see revised draft EIS Chapter 15: Groundwater, Section 15.6.2. Mitigations to limit the magnitude of temporary localised drawdown are provided in revised draft EIS Section 15.7. As stated in the revised draft EIS, there is potential for groundwater mounding to occur below significant embankments and compressible material. However, the depth to groundwater along the Project alignment is typically > 10 m BGL, which reduces the likelihood of mounding. Site-based groundwater monitoring events are on hold until the detailed design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset (Chapter 15: Groundwater, Section 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of groundwater changes.	Chapter 15: Groundwater Section 15.4.4 Section 15.6.2 Section 15.7
001f	001f.0002	Private			Problem with cut and fill in existing bores - Destruction of water bores cannot be rectified by simply drilling new holes as there may be no underground water streams at the new drill site. In cases such as this, farmers having their underground water eliminated would mean they are not able to continue operations. Without water, properties simply become non-viable. Anecdotal evidence suggests that stock and domestic bores dried up or had flows reduced in the Westbrook district because of the second range crossing cut and fill activities, proving that concerns regarding bore impacts are very real.	Nil.	Appendix U: Groundwater Technical Report Table 8.2 states that bore surveys have been undertaken for landowners impacted by the Project footprint. Where a groundwater bore is expected to be decommissioned or have access to usage impaired as result of the Project, 'make-good' measures will be agreed in consultation with the impacted landholder. The make-good process is presented in Appendix U: Groundwater Technical Report Figure 8.1. If the landowner does not accept the 'make-good' assessment, ARTC will: <ul style="list-style-type: none">Advise the landowner that they are entitled to obtain an assessment from a suitably qualified personAdvise the landowner that ARTC will pay their reasonable costsProvide ARTC's bore assessment to the landowner for review by the landowner's suitably qualified personAdvise landowners of their expectations as to the reasonable costs of obtaining a bore assessment An operational groundwater management and monitoring program will be developed for the initial operation years of the Project depending on groundwater observations and data collected during pre-construction activities and early works stage of the Project (Appendix U: Groundwater Technical Report Section 8.3).	Appendix U: Groundwater Technical Report Section 8.3 Table 8.2 Figure 8.1
001f	001f.0003	Private	Groundwater		Dissecting water Table for construction - Dissecting the water Table affects all bores accessing that water. Dissecting the water Table results in the water Table draining. This results in any bore holes in the area becoming dry or the water Table lowering. Lowering of the water Table will mean that the existing pumps no longer sit in water, and therefore will not pump water to the surface. To then access water these pumps, need to be lowered at great expense. If the bore hole is completely dry moving the pump will not result in any water being pumped. Limiting the impacts of the inland rail to the Border to Gowrie Alignment, is naive and deceptive with respect to ground water. Dissecting the water Table results in many bores outside the alignment being affected.	ARTC must undertake a proper assessment of groundwater disturbance and include all bores relying on the water streams dissected. ARTC must be conditioned to make good to any bore which exhibits any more than a 5 m draw down and must provide new bores with the same water capacity for any bores that dry up. If new water supplies in the form of bores are not able to be provided by ARTC, ARTC must be conditioned to provide water of the same or better quality from alternative water sources to the rural properties affected.	The location of the alignment was selected in part as it is located within the existing Southern Freight Rail Corridor, gazetted as a future rail corridor in 2010. However, some excavations (cuts) will be required to achieve suitable landform within the Border to Gowrie section. Land use change (rail footprint) is not likely to influence recharge based on the size area of the Project footprint related to the aquifer. Ongoing monitoring will confirm and assess natural groundwater fluctuation (recharge to the aquifer). As part of the revised draft EIS, predictive groundwater models were developed to assess potential groundwater drawdown (worst case) due to interception of groundwater and resulting drainage within the deep cuts. Modelling results in the revised draft EIS indicate only localised drawdown around the vicinity of deep cuts that intercept groundwater, with a predicted maximum horizontal extent of drawdown extending up to 43 m from the rail centreline. Modelling indicates impact to be wholly contained within the Project footprint, with no regional groundwater drawdown/ wider impact on the aquifer as a result of the Project. For more information, see revised draft EIS Chapter 15: Groundwater, Section 15.6.2. Whilst no drawdown impacts are anticipated for groundwater bores outside the Project footprint, as stated in revised draft EIS Chapter 15: Groundwater, Section 15.7.4, where bores are expected to be decommissioned or have access/ usage impaired as result of the Project, 'make good' measures will be agreed in consultation with the affected landowners during detailed design. ARTC has developed the Groundwater make-good process referenced in EIS Chapter 15: Groundwater to provide guidance as how this process will be carried out between ARTC and landholders.	Chapter 15: Groundwater Section 15.6.2 Section 15.7.4
001f	001f.0004	Private	Groundwater	Modelling	ARTC providing inaccurate information on bores affected - ARTC say there will only be 30 bores affected by the inland rail. ARTC claim they will decommission these 30 bores. The snapshot of ARTC's own map with the yellow dots being registered bores itself shows that the 30 bores ARTC has claimed are incorrect.	ARTC need to redo the Section on groundwater and incorporate all bores in the footprint. ARTC need to provide mitigation solutions for all bores both registered and unregistered. ARTC need to be conditioned to make good for any ground water impacts inland rail causes. ARTC need to engage with bore holders on the effects of the inland rail on bores. Land holders found out their bores will be decommissioned from the EIS ARTC had not provided them with this information. In the case of irrigation bores, being told your bore is being decommissioned results in losing your income.	The Project footprint (temporary footprint required to enable the Project and permanent footprint that remains after construction) is wholly contained within the groundwater impact assessment area (1-km radius from rail centreline). Section 15.5.4 details the breakdown for registered and unregistered bores within the impact assessment area, and how that information was utilised to develop the revised draft EIS. The predictive modelling does not indicate impact to any bore (registered or not) from predicted Project groundwater impacts. Project-specific monitoring bores were installed, as detailed in Section 15.4.3. A total of 48 Project bores comprise the revised groundwater monitoring network and can form the basis of the groundwater management and monitoring plan (GMMP) (Table 15-21). ARTC has undertaken a bore survey of potential groundwater users (landowners) impacted by the Project footprint to confirm the location of registered bores and to establish the presence of any unregistered bores. Real properties (lot/ plan) to be intersected by the Project footprint or within 80 m deep cuts (> 10 m deep) were targeted and landholders were provided an opportunity to identify groundwater bores (registered and unregistered) as part of this survey. See revised draft EIS Appendix U: Groundwater Technical Report, Section 4.7.5 with the results from the landholder bore survey. As stated in revised draft EIS Chapter 15: Groundwater, Section 15.7.2, where a groundwater bore is expected to be decommissioned or have access to it impaired as result of the Project, ARTC will provide 'make good' measures will be agreed in consultation with the affected landowner during detailed design. ARTC has developed the Groundwater make-good process referenced in EIS Chapter 15: Groundwater to provide guidance as how this process will be carried out between ARTC and landholders.	Chapter 15: Groundwater Section 15.4.3 Section 15.7.2 Table 15-21 Appendix U: Groundwater Technical Report Section 4.7.5
001f	001f.0005	Private	Groundwater		ARTC has provided a list of proposed 58 actions on mitigation and management actions in response to dissection water tables. Of the 58 actions, none have been undertaken prior to release of the EIS. ARTC says it will develop strategies or plans, but in the EIS none have been provided. Of the 58 points to be actions only one relates to registered bores. There is no recognition that blasting activity may also fracture the water tables beneath the proposed cuttings.	The EIS be re-released once all plans are developed so the public can comment.	The mitigation measures described in Section 15.7 of the revised draft EIS Chapter 15: Groundwater are intended for implementation in future stages of Project delivery, being construction works and operations stages, and are not applicable to the current Project stage. The proposed mitigation measures specific to the current reference design stage are described in Section 15.7.1 of Chapter 15: Groundwater and all of which have been considered and/or been undertaken during reference design stage. Localised, controlled blasting is anticipated to be used to excavate material along some sections of the Project. Controlled blasting is only likely to occur in hard rock. Where blasting is to be undertaken within the Border to Gowrie Section of the Inland Rail alignment, the depth of groundwater is expected to be sufficient to prevent impact to the underlying aquifer. Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of groundwater changes. The proposed mitigation measures have been reviewed as part of the revised draft EIS (Chapter 15: Groundwater, Section 15.7.2). The revised draft EIS will be publicly notified with a notification period prior to acceptance of the final EIS. The Impact Assessment and Consultation Process is presented in Chapter 3: Legislation and Project Approvals Process, Section 3.2.1, Figure 3.2.	Chapter 3: Legislation and Project Approvals Process Section 3.2.1 Figure 3.2 Chapter 15: Groundwater Section 15.4.2 Section 15.4.3 Section 15.4.4 Section 15.7 Section 15.7.1 Section 15.7.2
001g	001g.0001	Private	Flooding	Cumulative impacts	Chapter 21 states that there may be a brief overlap in 2021 between the conclusion of construction for the Asterion Medicinal Cannabis Facility and the commencement of early works activities for the Project; however, it is anticipated that by this point the footprint for the Asterion Medicinal Cannabis Facility will have been established, so new impacts to land use and tenure from this development will no longer be occurring. The submitter states that the combination of flood impacts for these two Projects may result in catastrophic upstream and downstream effects, including loss of life, and not providing this data is misleading. Restricting water flow has major consequences, particularly on height of water and speed of water rise. Rapidly raising water puts at risk any downstream houses, but in the case of the Westbrook Creek, it meets Oakley Creek downstream and could cause major damage to the town of Oakley if the water is now concentrated into an inland tsunami.	The cumulative impacts be re-assessed with real data such as the flood mapping provided for the Asterion Project to be approved. This flood mapping should be combined with ARTC flood mapping to provide a proper assessment of cumulative impacts.	Development applications are considered by the relevant planning authority, in the case of the Asterion Medicinal Cannabis Facility, Toowoomba Regional Council (TRC) is the relevant determining authority. As part of any development application located in a flood-affected area, and in accordance with TRC's Flood Hazard Overlay Code, developers are required to carry out a flood risk assessment for the new development to demonstrate that no adverse flood impacts will be caused elsewhere as a result of the development; or that impacts would be suitably mitigated. ARTC does not have control over the timing of new developments as determined by TRC, and it is therefore considered unreasonable for ARTC to include proposed developments in their flood modelling to support a reference design and revised draft EIS process. As part of the detailed design of Inland Rail, significant new developments, with development approval, that are likely to affect the local hydrology and floodplain behaviour, and that is likely to be constructed prior to the construction of Inland Rail, will be included in the flood modelling. Developments for inclusion will be discussed and agreed upon with the applicable approval authority. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and reference design developed by ARTC meet national guidelines and industry best practice. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 2
001h	001h.0001	Private	Flora and Fauna	Koala	The EIS should provide all details on crossings including locations, structures to be provided, maintenance schedules for the fauna crossings, ARTC's commitment to treating injured animals (the cost of feeding a Koala is very large as they only eat trees from where they were rescued and tree branches need to be wild harvested (i.e. climbing trees and chain sawing branches) each week to give them fresh vegetation to eat).	The EIS states -Fauna crossing opportunities for species such as Koala, Condamine earless dragon and Greater glider have been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. Where possible, these align with regional, state and locally significant fauna movement corridors or areas of important fauna habitat. " The submitter points out that the site of these crossing are not nominated in the EIS nor are the specifications of the construction of these detailed. There are no details provided for the care of injured animals.	Since the submission of the draft Border to Gowrie EIS, ARTC has developed the following key documents to support the revised draft Border to Gowrie EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. The Fauna Connectivity Strategy identifies the process for the identification and design criteria for fauna crossing opportunities for species such as Koala to provide for habitat connectivity across the landscape. The finalisation of the crossing structures, fencing and other mitigation measures is subject to detailed design and feasibility assessment to further consider constraints such as land access and hydrology mitigations. Appendix N: Draft Fauna Management Plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
001h	001h.0002	Private	Flora and Fauna		The fauna crossing section needs to be revised to include scientific evidence to support the locations and types of crossing. Once this new EIS is written to needs to be released for public comment.	The EIS states that fauna crossing opportunities have been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The submitter outlines that Appendix M does not provide any details of where or what type of crossings will be provided. The submitter also notes that culverts can be extremely dangerous for fauna. ARTC do not provide any evidence that the proposed crossing meet any standards and they do not have any consultants' reports supporting the colocation of crossing with waterways.	Since the submission of the draft Border to Gowrie EIS, ARTC has developed the following key documents to support the revised draft EIS: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. The Fauna Connectivity Strategy identifies the design goals and performance criteria of proposed fauna crossing opportunities for species such as Koala to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. The documents have been developed based on best practice industry standards and guidelines to maintain habitat connectivity through the landscape. Key reference documents include the Koala-sensitive Design Guidelines (DES, 2022) and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage due to the consideration of alternative discipline constraints such as land access and flooding and hydrology mitigations.	Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
001h	001h.0003	Private	Flora and Fauna	Mitigation measures	It is recommended that the EIS be released for public comment once all the plans and strategies are developed to enable comment on what is actually being proposed.	The EIS is supposed to provide enough detail for the public to comment on the proposed mitigation strategies. An EIS which says these details will only be refined in the detailed design process does not meet the TORs. The specific details of the fauna fencing strategies needs to be made available to the public.	Noted. The public notification requirements of the Border to Gowrie revised draft EIS are managed by the Office of Coordinator-General in accordance with the requirements of the State Development and Public Organisation Act 1971.	N/A
001h	001h.0004	Private	Flora and Fauna	Koala	Any clearing of vegetation stresses Koalas. The trees the Koalas inhabit in the inner downs are poplar box trees which are mainly over 100 years old. Koalas need 400 trees each to survive. ARTC destroying just one tree puts the Koala in jeopardy.	Nil.	ARTC acknowledges the importance of Koala habitat and aim to avoid and reduce clearing where possible. Since the submission of the draft EIS, ARTC has undertaken field surveys to verify the presence of threatened species and ecological communities within the impact assessment area. The basis on this survey was used to avoid and reduce Project impacts to ecological values through design refinement as shown in Appendix B3: Changes to Reference Design since draft EIS. The results of field survey has also informed the revised reference design and construction zone spatial impacts, to avoid impacts of high ecological value (as verified by field surveys) where possible such as laydown areas and corridor width reductions. Where avoidance of habitat clearing was not possible to enable the Project, mitigation measures and controls have been identified to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. The following key documents replace in full any preliminary versions contained in the draft EIS Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. As outlined in Chapter 11: Flora and Fauna, these mitigation measures have been selected based on the best available information including government guidelines and similar Projects. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Ecology Technical Report. Appendix Q: Environmental Offset Delivery Strategy outlines the properties that make up the Project's offset portfolio and their suitability to acquit significant residual impacts on MNES and MSES. A summary of how the proposed offset portfolio will acquit the anticipated offset requirements for the Koala to achieve no net loss is included in Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie.	Appendix B3: Changes to Reference Design since draft EIS Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
001h	001h.0005	Private	Flora and Fauna	Koala	Translocating Koalas causes their death. Koalas have highly specified gut enzymes which allows them to digest the trees in their local area. They cannot be relocated and survive. ARTC do not provide the details of the pre-identified appropriate habitat, but if it is suitable for Koala, it is highly likely that Koalas already live in the area. This will mean potentially introducing disease to other Koala populations. Koalas are also territorial and communicate by marking their trees with their scent. Moving Koalas to other areas will hasten their demise.	Translocation cannot be used as a strategy.	The plans and strategies prepared to support the revised draft EIS have been prepared in accordance with best practice and industry standards including the Koala-sensitive Design Guidelines (DES, 2022) and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR 2000 and 2010, respectively). Plans and strategies detailed in the EIS propose specific management and mitigation measures to minimise impacts to Koalas associated with construction activities. Appendix M: Draft Koala Management Plan and the Chapter 24: Draft Outline Environmental Management Plan Section provides management, mitigations and approaches to how ARTC propose to deal with Koalas that are located within the Project clearing footprint. Translocation of Koalas to new areas will not be used as a preferred strategy. The fauna management plan outlines the roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.	Chapter 24: Draft Outline Environmental Management Plan Appendix M: Draft Koala Management Plan
001h	001h.0006	Private	Flora and Fauna	Koala	Wildlife carers have a very tough job in sourcing fresh gum leaf each week for Koalas. They must travel considerable distance, must cut branches from trees sometimes at height and transport this leaf back to feed the Koalas. This comes at considerable expense and danger. Koala carers have said that if they could get access to plantations of trees where every 5 row was hedge rowed at a height of 12 m they could substantially cut leaf for the Koalas in their care.	ARTC should let them undertake this work on the properties they have purchased. This would provide them with offsets but also provide ongoing leaf resources for the carers. ARTC could start this now by purchasing 10 year plus poplar box trees and planting them at their Southbrook properties. They would need to set up a watering system, but there is bore water available on the properties they have purchased that they could use. If the various levels of government come to the realization that the inland rail should go on a less impactful route on existing corridors, ARTC will be able to use this property as an offsets for other Projects.	ARTC will continue to consult and work with community and conservation groups regarding community initiatives which directly contribute to the protection and conservation of local wildlife and their habitat. In addition, ARTC will be delivering the Border to Gowrie Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie that will investigate opportunities to restore and create habitat for impacted threatened plants and animals which may also facilitate programs to support wildlife care and protection initiatives.	Appendix Q: Queensland Environmental Offset Delivery Strategy - Border to Gowrie
001h	001h.0007	Private	Flora and Fauna	Koala	Koalas in the inner downs eat Eucalyptus populnea, of which there are not large areas. In fact, every tree counts. ARTC has understated Koala numbers by hundreds. A consultant employed by Landcare has stated that the Inner Downs Koalas may be a separate gene pool making them unique and an imperative to save.	Nil.	Post the release of the draft Border to Gowrie EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. Field verified ecological assessments as well as expert input from a range of consultant, industry and academia sources have supported the ecological assessment and reporting within the revised draft EIS. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial Ecology Technical Report. The Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements. ARTC has commenced a key research initiative relating to the Koala to better understand populations, potential impacts and to develop targeted mitigation and management measures. ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study Koala genetics that focusses on population genetics and dietary analysis for Koalas across eight of the Inland Rail Projects. The purpose of this study to: <ul style="list-style-type: none">➤ Increase baseline data on Koala population resilience and restoration requirements.➤ Inform Koala conservation controls as required in conditions of approval.➤ Inform fauna connectivity plans.➤ Inform Koala offset management decisions.	Appendix M: Draft Koala Management Plan Appendix O: Matters of National Environmental Significance
001h	001h.0008	Private	Flora and Fauna	Koala	The 'high' category risk to Koalas is correct but it is not mitigated once construction is halted. The rail line fragments the food trees and the ongoing risk of death from vehicles including trains is very real. This cannot be mitigated.	To save the Koalas a new route on existing corridors needs to be selected.	Mitigation measures and controls have been factored into the Project to in order to reduce the impact of habitat fragmentation and vehicle collision on fauna populations, including Koalas, after the construction stage. Fauna crossing structures and fencing will be installed to maintain habitat connectivity and restrict access to the rail corridor. As outlined in Chapter 11: Flora and Fauna, these mitigation measures have been selected based on the best available information including government guidelines and similar Projects. The Appendix M: Draft Koala Management Plan, Appendix N: Fauna Management Plan and Appendix P: Fauna Connectivity Strategy are new documents developed since the submission of the draft Border to Gowrie EIS. These documents detail information on risk and mitigations that specifically addresses impacts to Koalas during railway operations including roles and responsibilities of personnel undertaking management and mitigation measures. In the case of treating sick/injured fauna, a qualified Fauna Spotter Catcher will be responsible for handling and relocating fauna to suitable habitat and ensuring injured any and/or sick fauna are assessed and treated according to the requirements of the Biodiversity Management Plan.	Chapter 11: Flora and Fauna Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
001h	001h.0009	Private	Flora and Fauna	Koala	ARTC need to undertake a full on-ground assessment of Koala numbers. Local evidence supports there being many viable breeding colonies along the corridor. The existing rail line was constructed over one hundred years ago, so the poplar box trees have re populated in this corridor and are the source of food for there Koala colonies. ARTC may be attempting to mislead the Coordinator-General on the numbers of Koalas to understate the impacts that will occur on the population. With the devastation to Koala population in the bush fries, every surviving Koala needs to be protected.	ARTC should be required to undertake DNA testing of the Koala population to determine if this gene pool is unique.	Since the submission of the draft EIS, ARTC has developed the following key documents based on field verified ecological survey: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed in conjunction with consultation with Commonwealth and State agencies, academic groups and community conservation groups. Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan. A Koala genetic study has been undertaken to understand the Koala population genetics along the Narromine to Acacia Ridge/Bromelton sections of the Inland Rail Project. As per results of this study (ERM, 2024) Koalas within the Project footprint belong to a single population that extends throughout south-east Queensland. Ecological monitoring which will be conducted during operation of the Project will include ongoing collection and analysis of Koala DNA samples from adjacent and broader areas from the Project and an analysis of gene flow at five-yearly intervals for 20 years.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Section 2.3 Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
001h	001h.0010	Private	Flora and Fauna	Koala	The EIS was supposed to contain all information relating to conservation and management. It contains no information on this and therefore does not meet the TORs. ARTC has provided a list of things that will be done, but no things that have been done	EIS needs to be rejected and rewritten with all the things ARTC say they will do including for public comment.	Post the release of the draft EIS for public notification, ARTC has completed additional detailed field surveys across the Border to Gowrie Project alignment to identify ground-truthed vegetation communities and associated habitats for threatened species. The most recent field data from the technical ecological assessments from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC), have been used to support the development of key species management plans. Chapter 11: Flora and Fauna within the revised draft EIS, assesses the ecological values within the Project footprint, and identifies the sensitive ecological receptors and conservation significant species. Potential impacts on these receptors have been assessed and appropriate mitigation measures have also been identified to manage these impacts. In addition, mitigation and management measures have been proposed in Chapter 24: Draft Outline Environmental Management Plan. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. The Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design stage and in the Wildlife Connectivity Plan that will be prepared. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy). The revised Appendix P: Fauna Connectivity Strategy proposes a range of different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage.	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Chapter 24: Draft Outline Environmental Management Plan Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
001i	001i.0001	Private	Social Impact Assessment		It seems to be difficult to evaluate an EIS if the proponents cannot provide data on the number of properties impacted. ARTC do not provide any actual details on the numbers of homes or sheds destroyed.	ARTC needs to reassess the route and determine how many properties are impacted. ARTC needs to disclose how many houses will be lost. The OCG needs to determine how many people losing their homes is too many for a Project which has a number of very real less impactful route alternatives.	The revised draft EIS Terms of Reference require that the selected alignment is assessed. Appendix X: Social Impact Assessment, Section 7.1.2 notes the number of residential dwellings requiring affected households to relocate based on the proposed revised reference design and consultation with landowners to date. Revised draft EIS Appendix F: Impacted Properties, provides a detailed breakdown of the Project's land acquisition requirements including the number and nature of properties affected, and the extent to which they are affected.	Appendix F: Impacted Properties Appendix X: Social Impact Assessment Section 7.1.2
001j	001j.0001	Private	General Project opinion - negative		The Commonwealth Government is currently undertaking an inquiry into the inland rail and into ARTC's ability to conduct this Project. ARTC has no experience in building rail lines especially greenfield lines. ARTC also has issues in the three states that inland rail is being constructed.	Many of the deficits in the EIS are covered in the submissions to the "Inquiry into the management of the Inland Rail Project by the Australian Rail Track Corporation and the Commonwealth Government." The submitter wants these submissions included in the OCGs consideration of the Project.	ARTC acknowledges the feedback received from the Senate Inquiry and continues to address the recommendations of the Report. The Australian Rail Track Corporation takes very seriously its commitment to improving the understanding and addressing of community concerns, and will continue to strive to meet and also exceed expectations in engagement with landowners, communities and stakeholders as Inland Rail progresses. This revised draft EIS addresses the Terms of Reference (ToR) as seen in Appendix A2: Terms of Reference Cross Reference Table and the additional information requested for the Project by the Office of the Coordinator-General.	Appendix A2: Terms of Reference Cross Reference Table
059a	059a.0001	Private - Brookstead	Landscape and Visual Amenity	Modelling	Concern raised with respect to viewpoint 17 at Pittsworth; and the high level of effect due to impacts of bridges and embankments on the northern edge of Pittsworth. The submitter states that the criteria used for assessing visual amenity are based on judgemental views that do not respect the key objective of identifying those who experience and value views of the landscape. An example is referenced from Section 4.7 - Landscape methodology overview, Plate 1 on page 25; that mountains and hills are preferred over flat land and that these subjective views are based on broad landscape objectives, that do not respect the uniqueness of each community impacted by the rail corridor. The submitter states that aesthetic values in rural communities are different to those experienced by the majority of Australians on the coastal fringe.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 16) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Hwy is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. With respect to the example cited in the submission, it is noted in Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the Guidance Note for Landscape and Visual Assessment (GNLVA) (AILA, 2018) are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts, where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.7 Section 8.2.22

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
059a	059a.0002	Private - Brookstead	Landscape and Visual Amenity		The submitter disputes that the change in visual amenity at viewpoint 17 near Pittsworth is acceptable, as it does not meet the principles of the guidance note in Section 4 - Objectives. The submitter states that it is a permanent, irreversible, adverse change to the landscape during construction and operational phases of the Project and these changes are listed as high impact both before and after mitigation. The submitter states the changes due to the current rail design is not a better outcome for the community.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values related to the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Highway is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The existing viewpoint assessments and visualisations provided for Viewpoint 17 (now 22) have been updated in the revised draft EIS to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 6 Section 8.2.22 Section 11.2 Table 95
059a	059a.0003	Private - Brookstead	Landscape and Visual Amenity		The submitter claims that viewpoint 17, is a highly sensitive visual viewpoint, as many small rural landholders have chosen this location for the Importance of the view, and its existing scenic qualities. The submitter highlights that the sensitivity of the landscape is based on the proposed design being a new greenfield Section of rail line crossing a previously quiet, rural location, and hence is a highly sensitive landscape.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values related to the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Highway is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The existing viewpoint assessments and visualisations provided for Viewpoint 17 (now 22) have been updated in the revised draft EIS to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 6 Section 8.2.22 Section 11.2 Table 95
059a	059a.0004	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	The submitter claims that the statement in Section 11.1, is misleading and incorrect in relation to viewpoint 17 at Pittsworth, that the Project is not aligned with existing rail infrastructure, and the new rail line is deliberately located to be close to the town of Pittsworth; directly impacting homes and dissecting small landholdings near the town.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values related to the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Highway is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The existing viewpoint assessments and visualisations provided for Viewpoint 17 (now 22) have been updated in the revised draft EIS to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 6 Section 8.2.22 Section 11.2 Table 95
059a	059a.0005	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	The submitter states that with respect to the proposed mitigation measures in Section 11.2: 'a. Embankments', the photo montage does not minimise the extent to which embankments restrict views or affect views from nearby residences. The submitter additionally highlights that the draft EIS is incomplete and non-committal as it states it will consider treatment opportunities, but only for the northern edge of the embankment at Pittsworth and there is no detail around what the mitigation will be, nor any commitment that mitigation will actually take place. The submitter requests further detail be provided in the draft EIS, regarding the visual amenity at viewpoint 17.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values related to the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Highway is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The existing viewpoint assessments and visualisations provided for Viewpoint 17 (now 22) have been updated in the revised draft EIS to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 6 Section 8.2.22 Section 11.2 Table 95
059a	059a.0006	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	The submitter states that the mitigation measures with respect to Section 11.2, Rural and Natural landscapes, do not include the rural aspect of the southern side of viewpoint 17, as the paragraph does not refer to Pittsworth. The submitter strongly refutes that the structure proposed in the area will enhance the rural landscape, as proposed in the draft EIS claim.	The current reference design for viewpoint 17 at Pittsworth must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pittsworth. The submitter states that currently the high impact is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values related to the Project. A broad range of representative viewpoints has been selected across the LVIA study area to represent a range of impacts. The Potential impacts associated with the Project, including Project lighting, are identified in Section 6 of Appendix K: Landscape and Visual Impact Assessment. Regarding the submission comment on Viewpoint 17, moderate sensitivity of Viewpoint 17 (now 22) in the revised draft EIS is considered appropriate, due to the proximity of nearby residential viewers with a specific interest in this view, including those staying at Pittsworth Motor Inn - but also noting that the existing Gore Highway is visible within this view and that this viewpoint is located on the outskirts of the settlement. The LVIA assessment notes that the potential effect of the Project on Viewpoint 17 (now 22) during operation is High. This is further discussed in Section 8.2.22 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. The existing viewpoint assessments and visualisations provided for Viewpoint 17 (now 22) have been updated in the revised draft EIS to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council. ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.9.3 Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 6 Section 8.2.22 Section 11.2 Table 95

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
060a	060a.0001	Private - Brookstead	Project alignment	Modelling	Submitter raises concern with respect to the route selection process in Figure 2.15, as it is lacking information or justification for the red, amber, green, grey classifications in the route comparison. Submitter highlights the discrepancy between a 3.8 km difference between C2 (Wellcamp) and C3 (Karara) routes, yet results in a 10 minute time increase. Submitter states, there is a lacking in transparency as to why a 10 minute time difference results in an amber light for C2 and green light for C3. Submitter highlights the 4 routes are not fairly compared, because 2 routes (C3 and C4), pass through the Macintyre floodplain and the town of Inglewood, resulting in a larger area of flood impact and also resulting in more residential properties impacted, due to passing through the town of Inglewood. Submitter highlights that if the four routes were compared fairly, they would all follow the same route bypassing Inglewood, and then the C3 route would be impact less residential properties (Figure 2.15 changes), less agricultural properties (EIS Figure 2.15), and be located in an area of lower agricultural impact, hence protecting prime agricultural land (Figure 1).	Submitter requests that the Coordinator-General to reject the EIS and request fair, open and transparent route comparison information to be presented. Submitter requests that the Coordinator-General to apply the Regional Planning Interests Act to the current Inland Rail Project. Submitter requests that Inland Rail must obtain a Regional Interests Development Approval for the current route with widespread impacts on prime agricultural land, or ARTC should find an alternative route that avoids widespread damage to the cropping land.	<p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie. The corridor assessment process was conducted by independent consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8 and 2.9, the design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria adopted by the MCA tool comprised:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability 12.5 per cent operations: 16.5 per cent. <p>Variance in route transit times can be attributed to a number of factors including track length as well as track vertical and horizontal geometry.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis. <p>As outlined in Section 8.5.1 (Tables 8-31 and 8-32, respectively) of Chapter 8: Land Use and Tenure, the permanent footprint will traverse less than 0.02 per cent of Class A land and Class B land, and less than 0.01% of land within an IAA within the Goondiwindi LGA. Additionally the permanent footprint traverses less than 2 per cent of Class A agricultural land, 0.22 per cent of Class B agricultural land and less than 0.2 per cent of land within an IAA within the Toowoomba LGA. The permanent footprint. Chapter 17: Social Section 17.6 and Chapter 8: Land Use and Tenure, Section 8.6 summarises the proposed management and mitigation measures for agricultural impacts. ARTC will continue to consult with farmers, graziers and owners of agricultural businesses that are directly affected or adjacent to the Project footprint during detailed design to develop measures to mitigate impacts.</p> <p>As stated in Chapter 3: Legislation and Project Approvals Process, Section 3.4.26, the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014 (Qld) (RPI Act) and therefore the Act does not apply. Whilst the RPI Act is not relevant to the Project, an assessment of the Project's impact on areas of regional interest has been undertaken in Chapter 8: Land Use and Tenure to satisfy additional information requested by the Coordinator-General.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Chapter 3: Legislation and Project Approvals Process</p> <p>Section 3.4.26</p> <p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6</p> <p>Table 8-31</p> <p>Table 8-32</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p>
060a	060a.0002	Private - Brookstead	Land Resources	Modelling	Submitter raises concern with respect to Project impacts on important agricultural land and route comparisons. Submitter highlights a significant decrease in the number of agricultural properties affected on the C3 route as compared to the C2 route and questions the weightings placed on the value of agricultural land in the multi-criteria assessment process; proposing that the weightings are subjective and not provided in the draft EIS. Submitter states the EIS is lacking in transparency of the facts required to justify the route comparison. Submitter states that when they compare the numbers of impacted agricultural properties and then transpose this route onto Figure 1, showing the class of agricultural land, affected on each route, there less affected properties on C3, and that the C3 route also passes through land of a lower classification (being unshaded grey/ brown or light yellow on Figure 1).	Submitter requests that the Coordinator-General to reject the EIS and request fair, open and transparent route comparison information to be presented. Submitter requests that the Coordinator-General to apply the Regional Planning Interests Act to the current Inland Rail Project. Submitter requests that Inland Rail must obtain a Regional Interests Development Approval for the current route with widespread impacts on prime agricultural land, or ARTC should find an alternative route that avoids widespread damage to the cropping land.	<p>The Project has been aligned to be co-located with existing rail and road infrastructure, where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. However due to a number of reasons, including topography and operational design parameters, a portion of the alignment has to traverse agricultural land. As described in Section 2.8-2.10 of Chapter 2: Project Rationale of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works.</p> <p>ARTC is committed to minimising loss of agricultural land as far as is reasonably practicable by co-locating with existing rail or road where possible or aligning with property boundaries as much as possible. However it is acknowledged that there will be a loss of agricultural land that cannot be avoided. The Project will sterilise productive agricultural land located within the Project footprint and this has been quantified in the revised draft EIS Chapter 8: Land Use and Tenure, Section 8.5.1. Based on the analysis, the scale of the total loss (within the permanent disturbance footprint) of productive agricultural land is anticipated to be low. At a local government level, within Goondiwindi, the permanent disturbance footprint traverses:</p> <ul style="list-style-type: none"> 0.02 per cent of Class A land, 0.02 per cent of Class B land, and 0.01 per cent of IAA land (Important Agricultural Area) <p>Within Toowoomba, the permanent disturbance footprint traverses approximately;</p> <ul style="list-style-type: none"> 0.17 per cent of Class A land, 0.22 per cent of Class B land, and 0.19 per cent of IAA land. <p>The Regional Planning Interests Act 2014 (Qld) regulates areas of regional interest and requires a resource activity or regulated activity proposed to be located in an area of regional interest to obtain a regional interests development approval. As the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014 (Qld), the Act does not apply (Chapter 8: Land Use and Tenure, Section 8.1). As such, the Regional Planning Interests Act 2014 (Qld), and the alignment's impact on the matters protected under Regional Planning Interests Act 2014 (Qld), do not have a bearing on the EIS process, nor is the approval of the EIS contingent on the assessment of the Project's impact on areas of regional interest. Notwithstanding this, the Project's impact on areas of regional interest protected under the Regional Planning Interests Act 2014 (Qld) has been assessed to provide a comprehensive assessment of the Project's impact on agricultural, environmental and societal values present within both the temporary and permanent disturbance footprints of the alignment.</p> <p>To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9 Area of regional planning interests traversed by the Project, which provides a total of areas of regional interest in relation to the Project footprint. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations.</p> <p>Where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible (Chapter 8: Land Use and Tenure, Section 8.5.4).</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption.</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises. This has included the identification of:</p> <ul style="list-style-type: none"> Landowners' needs regarding access to the properties and the closure of private roads Property infrastructure such as fences and dams which would be affected and need to be addressed as part of compensation arrangements with the Acquiring Authority The potential for changes to groundwater access. <p>This will inform development of the detailed design and Construction Environmental Management Plan.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Chapter 8: Land use and Tenure</p> <p>Section 8.1</p> <p>Section 8.5.4</p> <p>Section 8.6.2</p>
060a	060a.0003	Private - Brookstead	Flooding	Modelling	Submitter highlights flood impacts and irreversible damage concerns with respect to route comparisons. Route C3 is known to "follow hard, well-drained ridge terrain until it crosses the Condamine floodplain; comparatively the C2 route traverses a wider Section of floodplain and covers cracking clay soils, providing no foundation for building a railway line or bridges. The floodplain is approximately 5 km wide on the C3 corridor; the AEP 1% of 23 km is inaccurate and it can be seen that the floodplain consists of a network of broken streams on the C3 route. The C2 route transverses 19 km of floodplain at its widest point of crossing the Condamine floodplain and therefore, the route comparison should weigh up an 18 km crossing versus a 4.5 km crossing of the Condamine floodplain. Submitter states this wider crossing on C2 occurs primarily because the Condamine river catchment is joined by at least 7 creeks and many other, unnamed waterways and is located 35 km further downstream, below where these tributaries join. Submitter highlights that a larger volume of additional water, therefore is present at C2, and the hydrology modelling identifies the difficulty of modelling at this point, below Tummaville where the water breaks out of the banks and is no longer contained within the main branch of the Condamine River (Chapter 12).	Submitter requests that the Coordinator-General to reject the EIS and request fair, open and transparent route comparison information to be presented. Submitter requests that the Coordinator-General to apply the Regional Planning Interests Act to the current Inland Rail Project. Submitter requests that Inland Rail must obtain a Regional Interests Development Approval for the current route with widespread impacts on prime agricultural land, or ARTC should find an alternative route that avoids widespread damage to the cropping land.	<p>The EIS is focused on the chosen alignment selected by the Australian Government.</p> <p>The chosen alignment has been supported by several technical reports and reviews between 2006 and 2020, which are detailed in Chapter 2: Project Rationale.</p> <p>Section 2.8 and 2.9 detail the corridor and alignment options considered for the Section of the Project between Yelarbon and Gowrie. A copy of the Inland Rail B2G Alternative Route Comparison Review is available at: infrastructure.gov.au/infrastructure-transport-vehicles/rail/inland-rail.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p>
065a	065a.0001	Private - Brookstead	Landscape and Visual Amenity	Modelling	Concern raised with respect to viewpoint 15 at Brookstead; and the high level of effect due to impacts of bridges and new rail corridor in and around Brookstead at Viewpoint 15. The submitter states that the criteria used for assessing visual amenity are based on judgemental views that do not respect the key objective of identifying those who experience and value views of the landscape.	The current reference design for viewpoint 15 at Brookstead must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Brookstead, specifically for local students at the School and community members using the park facilities. Currently the high impact on visual amenity specified in the draft EIS is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	<p>The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts of the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 15 (now 20) which discusses impacts on the community of Brookstead and is considered representative of possible views obtained from the school and nearby residential properties.</p> <p>With respect to the example cited in the submission, it is noted in Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values.</p> <p>It is also noted that impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Regarding the submission comment on Viewpoint 15, moderate sensitivity of Viewpoint 15 (now 20) in the revised draft EIS is considered appropriate due to the relatively low number of nearby residential viewers with a specific interest in this view and the proximity of this viewpoint to the alignment. The LVIA assessment notes that the potential effect of the Project on Viewpoint 15 (now 20) during operation is High. This is further discussed in Section 8.2.20 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment.</p> <p>Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Brookstead that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and the relevant Regional Council.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.7</p> <p>Section 7.1</p> <p>Section 8.2.20</p> <p>Section 11.2</p> <p>Table 95</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
065a	065a.0002	Private - Brookstead	Landscape and Visual Amenity		The submitter disputes that the change in visual amenity at viewpoint 15 near Brookstead is acceptable; as it does not meet the principles of the guidance note in Section 4 - Objectives. The submitter states that it is a permanent, irreversible, adverse change to the landscape during construction and operational phases of the Project and these changes are listed as high impact both before and after mitigation. The submitter states the changes due to the current rail design is not a better outcome for the community.	The current reference design for viewpoint 15 at Brookstead must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Brookstead, specifically for local students at the School and community members using the park facilities. Currently the high impact on visual amenity specified in the draft EIS is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	<p>The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 15 (now 20) which discusses impacts on the community of Brookstead and is considered representative of possible views obtained from the school and nearby residential properties.</p> <p>With respect to the example cited in the submission, it is noted in Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. It is also noted that impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Regarding the submission comment on Viewpoint 15, moderate sensitivity of Viewpoint 15 (now 20) in the revised draft EIS is considered appropriate due to the relatively low number of nearby residential viewers with a specific interest in this view and the proximity of this viewpoint to the alignment. The LVIA assessment notes that the potential effect of the Project on Viewpoint 15 (now 20) during operation is High. This is further discussed in Section 8.2.20 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment.</p> <p>Current mitigation measures, outlined in Section 11, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Brookstead that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and managers.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.7 Section 7.1 Section 8.2.20 Section 11 Table 95
065a	065a.0003	Private - Brookstead	Landscape and Visual Amenity		The submitter claims that viewpoint 15, is a highly sensitive visual viewpoint, as it impacts on the local school children and families who have chosen schooling and recreation in this small country school. The submitter states this choice is partly influenced by the importance of the rural outlook and its existing peaceful qualities. The submitter highlights that the sensitivity of the landscape is based on the proposed design being a new greenfield Section of rail line crossing a previously quiet, rural location, and hence is a highly sensitive landscape.	The current reference design for viewpoint 15 at Brookstead must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Brookstead, specifically for local students at the School and community members using the park facilities. Currently the high impact on visual amenity specified in the draft EIS is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	<p>The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 15 (now 20) which discusses impacts on the community of Brookstead and is considered representative of possible views obtained from the school and nearby residential properties.</p> <p>With respect to the example cited in the submission, it is noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. It is also noted that impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Regarding the submission comment on Viewpoint 15, moderate sensitivity of Viewpoint 15 (now 20) in the revised draft EIS is considered appropriate due to the relatively low number of nearby residential viewers with a specific interest in this view and the proximity of this viewpoint to the alignment. The LVIA assessment notes that the potential effect of the Project on Viewpoint 15 (now 20) during operation is High. This is further discussed in Section 8.2.20 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment.</p> <p>Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Brookstead that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and managers.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.7 Section 7.1 Section 8.2.20 Section 11.2 Table 95
065a	065a.0004	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	The submitter highlights that the statement in Section 11.1, indicates the significance of impact at viewpoint 15 at Brookstead, that the Project is aligned with existing rail infrastructure, but the existing rail is not used regularly. The submitter states that the alignment is deliberately located to be close to the town at Brookstead and it directly impacts homes and infringes on landholdings in this greenfield area near the town.	The current reference design for viewpoint 15 at Brookstead must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Brookstead, specifically for local students at the School and community members using the park facilities. Currently the high impact on visual amenity specified in the draft EIS is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	<p>Section 11 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment provides discussion of mitigation measures and controls that have been incorporated into the revised reference design development process, as appropriate and where possible, as well as those measures that are proposed to be adopted for future stages of Project delivery. Development of the revised reference design for the Project has progressed in parallel with the impact assessment process and the revised reference design has been slightly amended for the revised EIS, to reflect outcomes of ongoing engagement with the community and key stakeholders. As a consequence, design solutions for avoiding, minimising or mitigating impacts have been incorporated into the reference design and revised EIS design as appropriate and where possible. The reference design has been developed in consideration of improving environmental outcomes, contributing to community wellbeing, contributing to social, economic and environmental sustainability, and mitigating impacts to the natural landscape and visual amenity. Among the mitigation measures and controls that have been factored into the design, or otherwise implemented during the revised reference design stage for the Project are as follows:</p> <ul style="list-style-type: none"> ▶ The alignment has avoided significant settlements to the greatest extent possible to assist in minimising visual impacts (e.g. Inglewood, Millmerran, Pittsworth) except where the alignment is within or adjacent to existing rail corridor (i.e. through Yelarbon, Pampas and Brookstead) ▶ The Project has avoided, where possible, direct impacts on areas noted as being of regional landscape significance defined using the regional scenic amenity methodology (ShapingSEQ) ▶ The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes ▶ The alignment has been positioned to reduce the number of crossings and extent of impact on watercourses. <p>The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 15 (now 20) which discusses impacts on the community of Brookstead and is considered representative of possible views obtained from the school and nearby residential properties.</p> <p>With respect to the example cited in the submission, it is noted in Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) which are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. It is also noted that impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Regarding the submission comment on Viewpoint 15, moderate sensitivity of Viewpoint 15 (now 20) in the revised draft EIS is considered appropriate due to the relatively low number of nearby residential viewers with a specific interest in this view and the proximity of this viewpoint to the alignment. The LVIA assessment notes that the potential effect of the Project on Viewpoint 15 (now 20) during operation is High. This is further discussed in Section 8.2.20 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment.</p> <p>Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Brookstead that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and relevant Regional Council.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.7 Section 7.1 Section 8.2.20 Section 11 Section 11.2 Table 95
065a	065a.0005	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	The submitter states that with respect to Section 11.2, the photo montage shown, does not respect the rural landscape, that existing tree lines have been cleared in the montage and there is nothing indicated to minimize the extent to which the line affects views from nearby residences. The submitter states that the draft EIS document is incomplete and non-committal as it states planting strips could (not will), be introduced to assist in integrating the landform into the existing landscape. The submitter requests that further detail be documented in the draft EIS and a firm commitment to the specific form of mitigation at viewpoint 15 and near the road-rail alignment at Brookstead.	The current reference design for viewpoint 15 at Brookstead must be modified to improve the high impact on visual amenity to preserve the landscapes and views around Brookstead, specifically for local students at the School and community members using the park facilities. Currently the high impact on visual amenity specified in the draft EIS is resulting in a permanent, irreversible adverse change during both construction and operation of the inland rail Project and this is unacceptable to the local community.	<p>The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 15 (now 20) which discusses impacts on the community of Brookstead and is considered representative of possible views obtained from the school and nearby residential properties.</p> <p>With respect to the example cited in the submission, it is noted in the Section 4.9.5 of Appendix K: Landscape and Visual Impact Assessment, that the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. It is also noted that impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Current mitigation measures, outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Brookstead that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork.</p> <p>In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and relevant Regional Council.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.9.5 Section 7.1 Section 11.2 Table 95
082a	082a.0002	State Agency	Stakeholder Engagement		The State Development and Assessment Agency (SARA) would be pleased to provide detailed pre-lodgement advice on the state interests relevant to its assessment of the Inland Rail B2G Project once the final alignment is known.	To facilitate this, SARA kindly requests the Office of the Coordinator-General provide the land descriptions of all affected land parcels. All development proposals can then be assessed by SARA against the criteria in the State Development Assessment Provisions.	<p>ARTC notes the advice provided in the submission, and will consult with SARA once a final alignment is realised, in detailed design.</p> <p>The revised draft EIS has been updated with further detail presented in Chapter 8, Land Use and Tenure, Section 8.5.4 Compliance impact assessment, which considers the consistency of the Project with the land use and planning instruments relevant to the Project footprint and Project activities, being the:</p> <ul style="list-style-type: none"> ▶ State Planning Policy (July 2017) ▶ Darling Downs Regional Plan (October 2013) ▶ ShapingSEQ 2023 (August 2017). ▶ Goondiwindi Regional Planning Scheme 2018 ▶ Toowoomba Regional Planning Scheme 2012. <p>As the Project has been declared a coordinated Project, the provisions of local government planning schemes do not apply and therefore assessment of the Project's consistency with the planning schemes is not required.</p> <p>The Project's permanent footprint traverses 495 lots and 33 easements. The temporary footprint traverses a total of 573 lots and 42 easements including those within the permanent footprint (Chapter 8: Land Use and Tenure, Section 8.5.1). The potential area of impact of the Project footprint based on the current reference design, existing land use and tenure of these properties, are detailed in Appendix F: Impacted Properties. Further discussion is presented in Chapter 8.</p>	Chapter 8: Land use and Tenure Section 8.5.4 Appendix F: Impacted Properties
082a	082a.0003	State Agency	General Project opinion - positive		The Planning Group of the Department of State Development, Infrastructure, Local Government and Planning has conducted a review of the EIS and supports the declaration of the coordinated Project and proposed EIS.	Nil.	ARTC acknowledges the Department of State Development, Infrastructure, Local Government and Planning's support of the Project's assessment pathway.	N/A
100	100.0007	Private	Noise and Vibration	Modelling	ARTC advised that the acceptable noise limit at the submitter's home is 52 decibels, despite not doing any noise testing at the property's facade. Criteria are extremely high and do not reflect what would be considered 'acceptable noise levels' under any other circumstances. Background noise monitored by ARTC at Pittsworth at night is 25-27 decibels. Their criteria suggest an increase of about 25 decibels at night during operations. ARTC has been unable to confirm how noise levels will be managed.	It should be a condition of the EIS that ARTC be required to offer to purchase any land where they cannot mitigate the nuisance noise.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
100	100.0008	Private	Noise and Vibration	Modelling	The World Health Organisation (WHO) released guidance for rail noise at night in 2018, specifying a maximum night time average noise limit from rail of 44 dB - well below the ARTC trigger levels. Submitter suggests their family and others along the rail corridor deserve 10 dB noise mitigation.	The precautionary principle should apply and if ARTC cannot refute the WHO guidelines, they should need to abide by them.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44 dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>
101	101.0001	Private	Noise and Vibration		Noise and vibration impacts on the house 'Jasches' very close to the proposed railway.	Build a new house within the flood protected area at 'Culverthorpes' main shed area. This would be cheaper than any other noise abatement.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The modelling results are discussed in Sections 7, 8, and 9 of Appendix W: Noise and Vibration Assessment Railway operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 7 Section 8 Section 9 Section 17</p>
102	102.0004	Private	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Border to Gowrie alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the Project revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1</p>
103	103.0002	Private	Noise and Vibration	Baseline/ background sampling	The EIS does not address TOR 11.117 or 11.119 as ARTC has not taken any background noise measurements along the entire Inglewood Millmerran Road.	Complete background noise measurements along the entire Inglewood Millmerran Road. Plan construction noise levels appropriately in this quiet rural area.	<p>Background noise monitoring was undertaken at representative locations along the Project alignment (Section 16.5 of Chapter 16: Noise and Vibration). The noise surveys quantified and characterised the local sources of noise to define the baseline environment prior to the construction and operation of the Project. The survey locations provide a representative measure of existing noise for the various sensitive receptors located along the Project alignment.</p> <p>The survey area included the more rural regions of the alignment where the noise environment is peaceful and not adversely influenced by suburban communities or road traffic. The background monitoring data was applied to determine stringent construction noise criteria that account for the sensitivity of the existing noise environment.</p> <p>The measured noise levels are however considered to be representative of rural noise environments that are dominated by environmental sources such as birds and insects rather than road traffic noise (refer to Chapter 16: Noise and Vibration, Section 16.4; Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5.4; Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 5).</p>	<p>Chapter 16: Noise and Vibration Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 5.4</p>
103	103.0003	Private	Noise and Vibration	Modelling	Submitter highlights that the Transport and Main Roads construction noise guidelines and Interim Guidelines on operational rail noise do not take background noise levels into consideration, asserting that the guidelines are inappropriate for rural spaces.	Consider other relevant guidelines including the WHO Guidelines for environmental noise, European Union guidelines, Public Health Association of Australia guidelines, World Bank guidelines, and from the USA. See submission for guideline reference details.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019) (Refer to Appendix W: Noise and Vibration Assessment Railway Operations, Section 3; Chapter 16: Noise and Vibration, Section 16.2)</p> <p>This Guideline does not require ARTC to provide noise mitigation to comply with the WHO guideline or other foreign guidelines. The WHO guideline, for instance, is specifically written for Europe with the findings primarily based on research into noise exposure within populations surrounding airports. However, potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration (CoP Vol 2) is gazetted under s318E of the Environmental Protection Act 1994 (EP Act), and is named as an applicable guideline under the Project Terms of Reference. Compliance with the CoP Vol 2 is a means of demonstrating compliance with the General Environmental Duty of the EP Act. The construction airborne noise criteria are based on background noise measurements. The minimum (most stringent) allowable construction noise criteria have been adopted across the Project as a result of the background noise measurement results.</p> <p>The Transport Noise Management Code of Practice Volume 1: Road Traffic Noise (CoP Vol 1) is implemented as a legislative requirement under the Transport Infrastructure Act 1994.</p>	<p>Chapter 16: Noise and Vibration Section 16.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 3 Section 11</p>
103	103.0005	Private	Noise and Vibration		Submitter outlines the possible cost of the burden of disease due to noise pollution from the Project.	Quantify, describe and avoid the risk of disease due to noise pollution from the Project.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational railway noise and vibration to sensitive receptors along the Project alignment. The updated assessments refer to established noise guidelines and criteria that are in place to protect amenity, health, and wellbeing.</p> <p>construction noise impacts, including from blasting, are presented in the revised draft EIS are predicted unmitigated worst-case 15-minute noise impacts. The EIS construction noise and vibration modelling methodology is conservative and is based on a preliminary construction methodology and worst-case vibration transmission. During detailed design, the construction noise and vibration assessment is to be refined based on a detailed construction methodology, and specific reasonable and practicable construction noise and vibration mitigation measures will be nominated. As per TMR's Transport Noise Management Code of Practice Volume 2, reasonable and practicable measures will be taken to minimise noise and vibration impacts on the community.</p> <p>The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44 dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>The revised draft EIS Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 7 and Section 8 Section 7, Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17, and Chapter 16: Noise and Vibration, Section 16.10, provide specific noise mitigation measures proposed to control noise at residences. These measures include physical mitigation (noise fences/noise barriers) and property upgrades to existing residences. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>The concept of burden of disease is specific to organisations such as the World Health Organisation and is not a requirement for the noise and vibration assessment for the EIS. On the basis that the Project has committed to managing noise in compliance with relevant guidelines and standards that have been specifically developed to set criteria and objectives to manage the noise and vibration impacts to amenity and health and wellbeing, and in compliance with the EIS conditions of approval, a study on noise pollution and risk of disease was not pursued.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Section 8</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
103	103.0006	Private	Noise and Vibration	Mitigation measures	The EIS does not consider noise mitigation measures or the precautionary principle of the EP Act, which is required for compliance with TOR 7.2.	Address TOR 7.2 and consider noise mitigation measures.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (Section 17 of Appendix: W Noise and Vibration Assessment - Railway Operations).</p> <p>Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration (CoP Vol 2) is gazetted under s318E of the Environmental Protection Act 1994 (EP Act), and is named as an applicable guideline under the Project Terms of Reference. Compliance with the CoP Vol 2 is a means of demonstrating compliance with the General Environmental Duty of the EP Act. The construction airborne noise criteria are based on background noise measurements. The minimum (most stringent) allowable construction noise criteria have been adopted across the Project as a result of the background noise measurement results. The Transport Noise Management Code of Practice Volume 1: Road Traffic Noise (CoP Vol 1) is implemented as a legislative requirement under the Transport Infrastructure Act 1994. The assessment as detailed in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic has been developed in accordance with these Codes.</p> <p>Section 16.10 of Chapter 16: Noise and Vibration provides details of the noise and vibration mitigation measures that have been identified based on the findings of the noise and vibration assessment.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 17</p>
103	103.0007	Private	Noise and Vibration		If ARTC meets the requirements of TMR's Interim guidelines on operational rail noise, it does not exonerate them from their obligations under the EP Act, the TOR for the EIS, or the provision of right-to-health assured under the International Covenant of Economic, Social and Cultural Rights that Australia is a signatory to.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. (Section 17 of Appendix: W Noise and Vibration Assessment - Railway Operations). The noise and vibration mitigation measures that have been identified based on the findings of the assessment are also discussed in Section 16.10 of Chapter 16: Noise and Vibration.</p> <p>Nonetheless, achieving the criteria does not preclude the potential for noise and vibration during train passbys to be perceptible at sensitive receptors in the context of the quiet rural areas along the Project alignment. ARTC shall continue to engage with the communities and stakeholders to discuss the predicted railway noise and vibration levels and measures to ameliorate potential impacts. All noise mitigation will be in place prior to commencement of Inland Rail operations and operational railway noise and vibration levels will be verified through noise and vibration monitoring once the Project is operational.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 17</p>
106	106.0003	Private	Noise and Vibration		Sensitive receptors referred to in the EIS refers to people who are most likely to be impacted. What about animal husbandry and native fauna. Noise and vibration could drive these animals away from their native habitat or reduce the production of farmed animals - especially poultry.	Install noise walls where noise and vibration impacts will affect these other sensitive receptors, not only people. Noise walls could be installed in areas where the rail line traverses close to poultry sheds, through known colonies of native fauna and in other areas close to feedlots, and areas where a significant number of animals gather to eat, drink or sleep.	<p>The revised draft EIS has been updated to assess the potential impacts to native fauna and livestock from noise and vibration generated during both construction and operational stages.</p> <p>Noise and vibration impacts to intensive livestock operations have been assessed in Chapter 16: Noise and Vibration. ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. An assessment of potential impacts to intensive animal operations has been conducted based on a criterion of 90 dBA Lmax. The findings and recommendations of the assessment are reported in Section 16.8 of Chapter 16: Noise and Vibration.</p> <p>Chapter 16: Noise and Vibration, Section 16.8 states, the relevant noise and vibration codes of practice, standards and guidelines that apply to Inland Rail do not provide criteria, limits, or procedures to assess noise and vibration impacts to native fauna during the construction and operation of the Project. To provide a detailed assessment of noise and vibration impacts to fauna, an assessment which identified levels of expected noise and vibration, hearing range for multiple species and a review of behavioural responses available from published literature was carried out and presented in Section 11.5.2 of Chapter 11: Flora and Fauna and Section 16.8 of Chapter 16: Noise and Vibration.</p>	<p>Chapter 16: Noise and Vibration Section 16.8</p> <p>Chapter 11: Flora and Fauna Section 11.5</p>
108	108.0004	Private	Noise and Vibration	Directly impacted landowner	Submitter's residence is 230 m from proposed rail line. A rail bridge is proposed to allow private property access for neighbours. Elevating the train will cause significant noise and vibration impacts on residence during construction and operation.	Nil.	<p>While elevating the alignment may increase unmitigated noise impacts to receptors, the application of a bridge to provide a crossing over local roads avoids the need for a level crossing. Level crossings can be a source of railway noise, such as train horns and audible alarm signals. The Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration excludes level crossings (safety warning devices) from the assessment and mitigation of noise. As such, implementing bridge design can act to reduce noise impacts from alternative design outcomes, and does not discount potential future mitigation which will be further developed throughout detailed design.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration. The methodology and assessment results are presented in Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment – Railway operations. As detailed design and construction works stages progress, further acoustic assessment (including noise modelling) will be undertaken to identify feasible and practicable mitigation and eligible receptors. Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment – Railway Operations, Section 17, discuss ARTC's mitigation approach and potential mitigation measures which may be used when the alignment is operational (noting these measures will be refined during detailed design and construction works stage).</p> <p>As per the Department of Transport and Main Roads' Transport Management Code of Practice: Volume 2 – Construction Noise and Vibration, reasonable and practicable measures will be taken to minimise impacts on the community throughout construction. Chapter 16: Noise and Vibration, Section 16.10 and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, Section 6.2, discuss ARTC's mitigation approach and potential mitigation measures which may be used while construction is taking place (noting these measures will be refined during detailed design). The Management of construction noise and vibration will be administered as part of the Project's Construction Environmental Management Plan (CEMP) and is discussed in further detail in of Chapter 24: Draft Outline Environmental Management Plan. Under the CEMP, a construction Noise and Vibration Management Plan will be produced to outline all reasonable and practicable mitigation measures to be used while various construction activities are occurring and ensure compliance with relevant approvals and/or legislation.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 17</p>
109	109.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
109	109.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Chapter 17: Social Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
110	110.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
110	110.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
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The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

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115	115.0004	Private - Brookstead	Noise and Vibration		<p>The submitter highlights that the location of the Pampas Rural Fire Brigade shed is situated approximately 70 m from the proposed rail line and given it is the hub of the volunteer fire service amenities, the rail will detrimentally impact on these activities.</p> <ul style="list-style-type: none"> Access to the shed will be restricted at certain times and noise and vibration will adversely impact, electronic training equipment as well as regular training and maintenance activities. Pampas Rural Fire Brigade volunteers will be subjected to excessive noise and vibration as residences are in close proximity to the rail corridor, and the volunteer firefighters will be impacted in a detrimental way due to proximity to the rail line and adjacent level crossing. 	<ul style="list-style-type: none"> The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Pampas region needs to revisit decisions around rail and bridge design in the village of Pampas, road access changes and the impact on residences, local businesses and local support groups, specifically the Pampas Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form, and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form, and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landholders on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation. 	<p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during both construction and railway operations. During the community engagement process, noise, vibration, and visual amenity have been identified as potential negative impacts to the community along the Project alignment (Refer to the revised draft EIS Appendix E: Consultation Report). The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessments have identified the Pampas Rural Fire Brigade as a sensitive receptor for noise and vibration and applied noise criteria to assess potential impacts.</p> <p>The revised draft EIS Appendix E: Consultation Report, Section 5.6, states that engagement with all sensitive receptors will be undertaken as ongoing and transparent engagement will be critical to determining mitigation measures during the detailed design stage. The results of the revised draft EIS (Section 10 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic) indicate where the predicted noise levels would exceed the noise assessment criteria requiring mitigation measures to be investigated. ARTC will engage with sensitive receptors based on the modelling results. Where modelling indicates a potential for construction and/or operational railway noise to affect the amenity of the community halls and churches, ARTC will continue to consult with the management committees/ trustees of churches and community halls, including the Pampas Rural Fire Brigade (Appendix E: Consultation Report, Section 5.6).</p> <p>The railway noise assessment has been conducted in accordance with DTMR's Interim Guideline (2019), to provide a revised impact assessment, including examples of at-property noise treatments and noise barrier mitigation. The noise and vibration assessment information, including discussion on noise mitigation, can be found in Appendix W: Noise and Vibration Assessment - Railway Operations and Chapter 16: Noise and Vibration of the revised draft EIS.</p> <p>The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 10</p>
115a	115a.0005	Private - Brookstead	Social Impact Assessment	Modelling	<ul style="list-style-type: none"> The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project. 	<p>The SIA Survey should be repeated.</p>	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Heildon, Heildon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values Appendix X: Social Impact Assessment, Section 6.2.2.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
115a	115a.0006	Private - Brookstead	Social Impact Assessment	Mitigation measures	<p>No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.</p>	<ul style="list-style-type: none"> The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'. 	<p>Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing.</p> <p>Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry.</p> <p>The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 8</p> <p>Section 8.5.6</p>
115a	115a.0007	Private - Brookstead	Noise and Vibration	Modelling	<p>Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.</p>	<p>The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.</p>	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
115	115a.0008	Private - Brookstead	Noise and Vibration	operational rail noise	<p>ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.</p>	<p>The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As well as all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately).</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
115a	115a.0009	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
115a	115a.0010	Private - Brookstead	Stakeholder Engagement	<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>	
116	116.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>

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116	116.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures, e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
116a	116a.0007	Private - Brookstead	Landscape and Visual Amenity	Modelling	Concern raised around lack of consideration with respect to the changed visual amenity at the location where the rail corridor intersects Millmerran-Leyburn Road. Criteria used to assess visual amenity is based on judgemental values, that do not reflect those of residents in the local communities. Criteria does not respect the key objective of identifying those who experience and value views of the landscape and an example of judgemental views is cited from Section 4.7, Landscape methodology overview, Plate 1 on page 25; stating that Mountains and hills are preferred over flat land. Aesthetic values in rural communities are different to those experienced by the majority of Australians on the coastal fringe. As evidence of misguided objectives of low impact in flat and remotely settled rural communities; the submitter demonstrates some of the alternative uses of the wide brown land in the Yandilla community with four clear examples.	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns. Whilst Millmerran-Leyburn Road provides access to Yarramalong Weir, it is not anticipated that views from the Weir itself will be impacted.</p> <p>As noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, these are the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) which are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values.</p> <p>Impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on the Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.7</p> <p>Section 7.1</p> <p>Section 8.2.16</p> <p>Section 8.2.17</p> <p>Section 11.2</p> <p>Table 95</p>
116a	116a.0008	Private - Brookstead	Landscape and Visual Amenity		Submitter highlights a lack of detail provided in the EIS. Appendix I, fails to produce montage of the alignments, at this point along the Condamine floodplain. The small rural locality of Yandilla has been ignored in the EIS and there is a lacking in clear accurate detail around changes to road-rail design at the location. The lack of detail is in addition to adverse impacts due to increased flooding, lack of acknowledgement of local affected community groups and ineffective stakeholder engagement in an area highly impacted (see additional submissions from the Pampas and Yandilla communities on the Condamine floodplain). It is noted in the design diagram that the proposed rail height adjacent to the road is a 3.0 m high embankment and bridging structure, and this is the only design information that can be commented on for visual amenity in the draft EIS.	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns.</p> <p>As noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, these are the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) which are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. Impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.7</p> <p>Section 7.1</p> <p>Section 8.2.16</p> <p>Section 8.2.17</p> <p>Section 11.2</p> <p>Table 95</p>
116a	116a.0009	Private - Brookstead	Landscape and Visual Amenity		Submitter states that the impact of visual amenity in the community is high impact due to a 3.0 m embankment and bridging extending from Millmerran-Leyburn Road to the Condamine River. Submitter further states that the design does not meet the principles of the Guidance Note for Landscape and Visual Assessment (GNLVA). Conversely, it results in a permanent, irreversible, adverse change to the landscape during both construction and operational phases of the Project. Submitter states that it is expected to look similar to the embankment near Pittsworth (viewpoint 17). Submitter provides key reasons for the high impact classification including:	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns.</p> <p>As noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, these are the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) which are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. Impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.7</p> <p>Section 7.1</p> <p>Section 8.2.16</p> <p>Section 8.2.17</p> <p>Section 11.2</p> <p>Table 95</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
116a	116a.0010	Private - Brookstead	Landscape and Visual Amenity		<p>Submitter disputes claim of low sensitivity in any rural area. The Condamine floodplain was originally open grassland with naturally very sparse occurrence of trees. While the grass has been cultivated to form agricultural cropping lands, there has been limited change to the long-distant views and strong skylines over the past 100 years.</p> <p>Submitter disputes that the vegetation in low lying areas has been extensively cleared, as it was not dense in the natural environment to begin with. Submitter highlights that facts need to be checked for accuracy and justified in EIS, as claims they do not provide a basis for a low sensitivity classification.</p> <p>Submitter claims that the viewpoint along Millmerran-Leyburn Road is a highly sensitive visual viewpoint (Section 4.9.2) as many rural landholders and rural rental residents have chosen this location for the importance of the view and its existing scenic qualities. The submitter further highlights that the road is frequented by tourists travelling to the camp ground at Yarralong Weir on the Condamine River.</p> <p>Submitter highlights that the sensitivity of the landscape in the area is based on a section of rail line that has not been used for over ten years and it is adding impact to a rural location, hence is a highly sensitive landscape.</p>	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns.</p> <p>As noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, these are the general principles identified in the <i>Guidance Note for Landscape and Visual Assessment</i> (GNLVA) (AILA, 2018) which are based on typical community responses to scenic preference studies. However, each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. Impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.7</p> <p>Section 7.1</p> <p>Section 8.2.16</p> <p>Section 8.2.17</p> <p>Section 11.2</p> <p>Table 95</p>
116a	116a.0011	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	<p>Submitter highlights that the statement in Section 11.1 indicates the significance of impact at the viewpoint, that the Project is aligned with existing rail infrastructure, but the existing rail has not been used for over 10 years.</p>	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment).</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns.</p> <p>Impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment). Agricultural landscapes associated with Landscape Character Type (LCT C) are considered to have a low sensitivity to change due to their highly modified state (with the exception of areas containing remnant vegetation associated with waterways which is addressed in LCT A). In addition, it is noted that existing rail infrastructure (whilst not currently operational) associated with the Millmerran Branch railway is still evident in this location.</p> <p>Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 7.1</p> <p>Section 8.2.16</p> <p>Section 8.2.17</p> <p>Section 11.2</p> <p>Table 96</p>
116a	116a.0012	Private - Brookstead	Landscape and Visual Amenity	Mitigation measures	<p>Submitter highlights that with respect to Section 11.2, proposed mitigation measures regarding embankments that the proposed rail design on the Millmerran-Leyburn Road is up to 3.0 m high on embankments and around bridges which will restrict views from the road and from nearby residences.</p> <p>Submitter requests that further detail be provided in the draft EIS regarding the visual amenity at this viewpoint and possible mitigation measures.</p>	Nil.	<p>The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project.</p> <p>The rationale for the selection of viewpoints to provide visualisations for has been provided in Section 4.9 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment. Visualisations have been selected on the basis of those illustrating key infrastructure elements likely to be of interest to the community and/or the most sensitive viewpoints, such as from regionally-significant scenic lookouts.</p> <p>An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns.</p> <p>Whilst embankments of up to around 3 m are proposed in this location, it is not considered that the scale will be equivalent to that provided in Viewpoint 17 (now 22), which are up to around 13 m above existing levels. Potential impacts of rail bridges in this location are considered to be represented by Viewpoint 12 (now 17).</p> <p>The visual impact assessment, informed by the select visualisations, provide guidance on the type of mitigation likely to be appropriate across the Project as detailed in the mitigation proposals. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment, discuss potential mitigation measures for embankments and bridges.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.</p>	<p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 4.0</p> <p>Section 4.9</p> <p>Section 8.2.16</p> <p>Section 11.2</p> <p>Table 95</p>
117	117.0003	Private - Brookstead	Noise and Vibration	Modelling	<p>Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.</p>	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
117	117.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	<p>No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.</p>	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 16</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
118	118.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
118	118.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 17.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
119	119.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
119	119.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 6.2 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
120a	120a.0001	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project.	The SIA Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	<p>Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
120a	120a.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
120a	120a.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A
120	120a.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4
120a	120a.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors. The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations). The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to: <ul style="list-style-type: none">▶ Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks.▶ Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways.▶ Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning.▶ Confirm all relevant school bus services to enable consultation with the operators.▶ Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will: <ul style="list-style-type: none">▶ Commence implementation of management measures relating to schools as agreed during the detailed design stage.▶ Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks.▶ Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
120a	120a.0006	Private - Brookstead	Stakeholder engagement		<ul style="list-style-type: none"> ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer'; resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness. 	<ul style="list-style-type: none"> Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTC's stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact. 	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.2.4</p> <p>Section 6.2.5</p> <p>Section 6.3</p> <p>Section 6.4</p> <p>Section 6.6</p> <p>Table 6.11</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 2</p> <p>Section 2.1</p> <p>Section 4.1</p> <p>Section 5.3</p> <p>Section 5.5</p> <p>Section 6</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 4.3</p> <p>Section 6.2</p> <p>Section 6.2.2</p>
121	121.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
121	121.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
122	122.0005	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
122	122.0006	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway Operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17
123	123.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
123	123.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6) and Appendix W: Noise and Vibration Assessment – Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6 Appendix W: Noise and Vibration Assessment – Railway Operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17

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124	124.0005	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
124	124.0006	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7) and Appendix W: Noise and Vibration Assessment – Railway operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix W: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17
125	125.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
125	125.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix W: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
126	126.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
126	126.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
127	127.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
127	127.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.2 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
128	128.0005	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted to for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 17: Social Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
128	128.0006	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Pampas cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17
129	129.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A
129	129.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	<ul style="list-style-type: none"> No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR. 	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 7. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial construction works.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School, Chapter 16: Noise and Vibration, Section 16.7 and Section 16.8. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 4.2 Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment – Railway operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
131	131.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix V: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
131	131.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> ▶ Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. ▶ Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. ▶ Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. ▶ Confirm all relevant school bus services to enable consultation with the operators. ▶ Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> ▶ Commence implementation of management measures relating to schools as agreed during the detailed design stage. ▶ Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. ▶ Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report, Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
133	133.0004	Private	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	Submitter offers the Millmerran Showgrounds for consideration as prime location.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the Project revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> ▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes ▶ Land tenure and ownership of each site ▶ Available land area ▶ Proximity to supporting infrastructure and services ▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation ▶ To avoid areas that are within the 1% AEP floodplains where possible ▶ Constraints such as significant vegetation communities, threatened species or heritage sites ▶ Road access ▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>
134	134.0003	Private	Noise and Vibration	Directly impacted landowner	Will experience increased noise through size of trains and length as well as two railway lines converging which increases current noise levels. Will also experience noise impacts from the tower that extracts fumes from the tunnel. The tower is proposed to be located approximately 900 m in front of submitter's property.	Nil.	<p>The revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (Section 17 of Appendix: W Noise and Vibration Assessment - Railway operations and Section 16.10 of Chapter 16: Noise and Vibration).</p> <p>The updated Project description is presented in the revised draft EIS Chapter 5: Project Description. Section 5.2 and Section 5.4 describes the key components of the revised reference design for the Project. Relevant design components of the Project have been considered in the noise and vibration modelling. However the design components that were raised by the submission i.e., tunnel and towers that extract fumes do not form part of the Project design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise community disruption in the construction works stage and through to operations. All operational noise mitigation measures will be in place prior to commencement of Inland Rail operations.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.2</p> <p>Section 5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
135	135.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1</p>
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139	139.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to and surrounding sensitive receptors. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. As described in Section 5.6.4 of Chapter 5: Project Description of the Project revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities include: <ul style="list-style-type: none">The proximity of the accommodation to likely construction sites for fatigue-management purposesLand tenure and ownership of each siteAvailable land areaProximity to supporting infrastructure and servicesLikelihood of noise, demand for essential services, and traffic impacts originating from the accommodationTo avoid areas that are within the 1% AEP floodplains where possibleConstraints such as significant vegetation communities, threatened species or heritage sitesRoad accessPotential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1
141	141.0005	Private	Noise and Vibration		draft EIS is missing the following details: details of sound mitigation options at the source, plus specifications of noise barriers in the rail corridor and a commitment to actually construct them; details of proposed property treatments against noise pollution, as well as treatment of residual noise impacts; specific details of noise mitigation options at Brookstead and Yelarbon Schools as both are expected to have noise exceedances even if the conceptual noise barriers are built.	Provide missing information.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment, including schools. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors. The revised draft EIS discusses a range of reasonable and practicable mitigation measures to reduce and control operational noise (Chapter 16: Noise and Vibration, Section 16.10, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17, and Appendix V: Noise and Vibration Assessment: construction and Road Traffic, Section 7). This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The railway noise levels were predicted at buildings and properties identified as being non-residential noise sensitive receptors, for example, places of worship, offices, schools and passive recreational facilities (such as public parks). This assessment included Brookstead and Yelarbon State Schools, including outdoor areas at these schools. This is discussed in Section 9 of Appendix W: Noise and Vibration Assessment. Free-field noise contours for outdoor receptors are also presented in Appendix I of Appendix W: Noise and Vibration Assessment. The predicted noise levels for Design Year 2040 does not indicate L_{Aeq} and SEM noise levels exceedance at Yelarbon State School. However, results indicated two buildings within Brookstead State School (ID 261749 and 261795) exceedance to the L_{Aeq} and SEM criteria. The attenuation measures at Brookstead and Yelarbon include the potential for railway noise barriers to screen the noise from future railway operations (Section 16 of Appendix W: Noise and Vibration Assessment Railway operations). The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The Brookstead and Yelarbon State Schools are located within 200 m of the Project footprint and the Southbrook Central State School is located 900 m from the alignment. These schools may be impacted by construction and/or operational noise and construction activities. Consultation with potentially affected schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2, Queensland Government engagement. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Section 4.2 Appendix V: Noise and Vibration Assessment: construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 9 Section 17 Appendix I
141	141.0012	Private	Noise and Vibration	Baseline/ background sampling	Draft EIS does not meet TOR 6.1 - no background noise modelling was completed at any location along the proposed greenfield track adjacent to Millmerran Inglewood Road.	Meet the TOR requirement.	Noise monitoring locations were selected as representative of clusters of sensitive receptors, particularly those most at risk of being impacted by construction noise. The measured background noise levels are however considered to be representative of rural noise environments that are dominated by environmental sources such as birds and insects rather than road traffic noise. Background noise monitoring was undertaken at 29 representative locations along the Project alignment to establish the construction noise and vibration criteria (Section 5.4 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic; Section 16.5 of Chapter 16: Noise and Vibration). Based on the background noise measurement results, the Rating Background Levels (RBLs) were determined in accordance with the CoP Vol 2. The RBLs were used to derive the noise limits applicable to the construction noise assessment are summarised in Table 3.3, Section 3.3 of Appendix V: Noise and Vibration Assessment- construction and Road Traffic. For consistency across the Project, the lowest RBLs have been applied to define the construction noise criteria. By adopting the lowest RBLs, the most stringent criteria have been applied which is a conservative assessment approach. The low background noise environment resulted in the most stringent applicable construction noise criteria being adopted across the entire Project (including between Millmerran and Inglewood). Therefore, any additional noise measurements would not change the outcomes of the assessment. It should also be noted that background noise levels are only considered in the construction noise assessment and have no bearing on operational noise impacts.	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.4
141	141.0014	Private	Noise and Vibration		Draft EIS does not meet TOR 6.4 - serious consideration has not been given to avoidance of noise impacts.	Meet the TOR requirement.	The draft revised EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. construction noise mitigation measures have been recommended in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration). In accordance with the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration, specific reasonable and practicable measures to minimise construction noise impacts will be nominated and implemented based on a detailed assessment of construction noise (Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). The noise mitigation hierarchy detailed in the Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 1: Road Traffic Noise has been recommended for the management and mitigation of operational road traffic noise impacts. Specific operational road traffic noise mitigation measures will be determined on a receptor-by-receptor basis following a detailed operational road traffic noise assessment during detailed design (Section 8 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The draft revised EIS further discusses a range of reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Section 8 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
141	141.0029	Private	Noise and Vibration		ARTC has not sought to protect or avoid impacts to the values identified in the EPP (Noise). Note that the DES application requirements for ERAs with noise impacts and TMR's policy on construction noise recognise that the impact of noise pollution depends upon the existing background noise. Whereas ARTC's proposed guidelines do not consider background noise. Submitter's property is identified as a sensitive receptor.	Noise associated with active crossings on main roads is not the ordinary functioning of rail infrastructure and therefore should need to comply with the EPP (Noise). Consider a grade separated crossing with road over rail.	Background noise monitoring was undertaken at 29 representative locations along the Project alignment. In accordance with the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration, the most stringent applicable construction noise criteria were adopted across the Project as a result of the low existing background noise levels measured at all 29 locations. Refer to Section 3.3 and Section 5.4 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Existing Noise Environment. The assessment of noise from railway operations has been conducted in accordance with the Department of Transport and Main Roads (DTMR) Interim Guideline – Operational Rail Noise and Vibration (2019) in the revised draft EIS. This state government guideline does not require consideration of background noise levels in operational rail noise assessments. ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the draft revised EIS. The draft revised EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. Refer to Section 16.8 and Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment. Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations, Mitigation and Management. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. All noise mitigation will be in place prior to commencement of operations.	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3.3 Section 5.4 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
141	141.003	Private	Noise and Vibration	Modelling	The average sound intensity for a noise that will be occurring only 11 minutes each hour is inappropriate as a way to quantify the impact on sleep or liveability. The maximum intensity is a more appropriate measure. The noise impact assessment does not accurately identify the impact on the submitter's residence.	Undertake the noise assessment using appropriate methodology to accurately portray the potential impacts.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The operational railway noise assessment considers both the overall noise exposure during a day and the highest individual single event maximum noise levels (which are not averaged over time). These noise metrics specifically address aspects such as long term noise amenity and annoyance/disturbance from individual noise events. The assessment methodology for noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 4
141	141.0031	Private	Noise and Vibration	Modelling	The sound model has not been verified at sites adjacent to level crossings. ARTC argues that L_{Amax} levels correlate better with their sound model verification that the Single Event Maximum levels required by the TMR Interim Rail Noise Guidelines because they are less sensitive to outliers. This may be appropriate for train passby where noise is due to wheel/ rail interaction, but not when a passby event is accompanied by a train horn blowing for 2 seconds. draft EIS has not met TOR 11.121(d).	ARTC should be required to report both levels, as the statistical model is not validated at sensitive receptors close to active level crossings. Alternatively, replace all proposed active level crossings with grade separated crossings.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The noise emissions for level crossings have been verified from noise levels measured at existing level crossings on freight networks in Australia. This includes wheel-rail noise, level crossing alarm signals and noise from train horns. The assessment has considered the Single Event Maximum levels from the TMR Interim Rail Noise Guidelines. At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3
141	141.0032	Private	Noise and Vibration	Modelling	Noise Projections rely on unjustified assumptions.	Justify assumptions used in noise modelling.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). All assumptions are described in detail and are specific to the operation of the Project. Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.	Chapter 16: Noise and Vibration, Section 16.8 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 6 Section 10

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141	141.0033	Private	Noise and Vibration	Modelling	ARTC has chosen to use an old version of the WHO Noise guidelines. The updated WHO Environmental Noise Policy 2018 is more appropriate and is or will be reflected in noise guidelines from different states in Australia and other countries.	The draft EIS should reflect the new science behind environmental noise impacts on human health. Refer to submission for proposed appropriate noise criteria for the property. Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
141	141.0034	Private	Noise and Vibration		Noise from the train may interfere with complete sentence intelligibility (ability to hear another person speak), which is significant for the submitter whose husband works from home and is often on the phone and in teleconference meetings.	Address noise impacts at the submitter's residence.	<p>ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
141	141.0035	Private	Noise and Vibration		The WHO Guidelines on Night Noise have been peer-reviewed and discussed to reach a consensus among experts and stakeholders. There is a substantial body of evidence supporting the negative health outcomes arising from sleep disruption (including associated with noise nuisance).	A worst case scenario should be assumed until more conclusive results are forthcoming. Suitable mitigation/ management measures should be provided for every site, including townships of Yelarbon, Brookstead and Pittsworth.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
141	141.0036	Private	Noise and Vibration	Mitigation measures	Residences, offices and schools are listed as sensitive receptors for noise in the EIS. Submitter home schools one of their children. The effects of noise on learning and concentration are well researched, affecting performance of both auditory and non-auditory tasks and short term memory. Effects of extraneous noise are more pronounced in children than adults. The Projected noise of 48 dB during the day is well above the recommended noise for unaffected learning.	Submitter's home should be a candidate for noise mitigation or avoidance. Refer to the submission for further details on proposed management measures.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>For the construction assessment, the subject property is primarily used as a residence and therefore the receiver is categorised as a residential receiver and not as an educational receiver. The construction internal noise criterion for critical educational facilities (i.e. 45 dBA L₉₀, 15 minutes) is not applicable to residential dwellings.</p> <p>The applicable DTMR operational rail noise criteria for both residential and educational receivers are the same: Single Event Maximum ≤82 dB(A), L₉₀,24hr ≤60 dB(A). Where these criteria are exceeded, feasible and practicable noise mitigation measures (e.g. noise barriers and at-property treatments) will be further investigated during the detailed design stage and installed prior to Inland Rail operations commencing (see Section 16.10 Chapter 16: Noise and Vibration).</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p>
141	141.0037	Private	Noise and Vibration	Mitigation measures	It is unclear whether the recommendation to adopt wayside horns at active crossings and soft tone alarm bells is to be taken up, either for the modelled scenario to determine noise levels at the submitter's residence or in the actual plans for the active level crossings.	This as a bare minimum needs to be clarified in the final EIS and the particular design of the active crossing specified.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>At level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3.8). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise.</p> <p>The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. The wayside horns and soft tone alarm bells were not included in the modelling and this recommendation was provided to further mitigate noise impacts at the sensitive receivers located closer to level crossings. Potential mitigation measures will be reviewed and finalised during detailed design.</p>	<p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 6.3.8</p>
141	141.0038	Private	Noise and Vibration	Mitigation measures	EIS mentions rail dampers but does not commit to using them and says they are only suitable for straight sections of track.	See submission for further details about proposed solutions, including provide information about property treatments, SEM noise levels for sensitive receptors, at-source noise mitigation, noise abatement at schools and around townships, adopting recommendations of noise measurement services at Woodspring Farm.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.2, presents a review of operational railway noise mitigation measure. Rail dampers may provide localised benefit for the control of rolling noise where the contribution from the rail is a primary factor. International experience suggests a reduction in rolling noise of 3 dBA could be achieved and there is limited evidence that suggests rail dampers can provide some benefit in controlling curving noise. The effectiveness of rail dampers may be limited by the stiffness of the ballasted track and concrete sleepers, the forces exerted by the heavy rail freight and the long-term durability and maintenance of such measures. Sections of generally straight track that are not highly susceptible to prominent or regular wear and would be most suited for the consideration of rail dampers.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>Regarding noise abatement at schools, ARTC has engaged with Department of Education (QLD) and the agreed approach is to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Consultation with potentially affected schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2, Queensland Government engagement.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p> <p>Section 17.2</p>
141a	141a.0050	Private	Noise and Vibration		Identified sensitive receptor would be impacted by noise at the proposed active level crossing. Road traffic including heavy trucks would also contribute noise nuisance - especially at night. EIS does not present noise contour maps or specific mitigation plans for sensitive receptors.	EIS to provide sufficient information to address the TOR.	<p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians. However, ARTC has assessed noise impacts from active level crossing and reported this separately in the revised draft EIS (Section 12.2, Appendix W: Noise and Vibration Assessment - Railway Operations). The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns, refer to Section 16.10, Chapter 16: Noise and Vibration, Railway Noise Assessment and Mitigation and Management Measures. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>The noise mitigation hierarchy detailed in the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 1: Road Traffic Noise has been recommended for the management and mitigation of operational road traffic noise impacts. Specific operational road traffic noise mitigation measures will be determined on a receptor-by-receptor basis following a detailed operational road traffic noise assessment during detailed design. The potential noise mitigation strategies for road traffic noise are discussed in Section 8 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Noise contour mapping has been provided in the draft revised EIS. Refer to Appendix D and Appendix J, within Appendix V: Noise and Vibration Assessment - Construction and Road Traffic for construction and road traffic noise and Appendix D and Appendix E within Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 8</p> <p>Appendix D</p> <p>Appendix J</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 12.2</p> <p>Appendix D</p> <p>Appendix E</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141b	141b.0051	Private	Land Use and Tenure		Draft EIS shows the proponent believes it has no obligation to avoid or limit its impacts on strategic cropping land (SCL). Draft EIS does not mention that the Project could be classified as a regulated activity under the RPI Act.	Move the line to forest land to protect the large area of strategic cropping land including the floodplain.	<p>The Regional Planning Interests Act 2014 (Qld) regulates areas of regional interest and requires a resource activity or regulated activity proposed to be located in an area of regional interest to obtain a regional interests development approval. As the Project is not a resource activity nor a regulated activity under the Regional Planning Interests Act 2014, the Act does not apply (Chapter 8: Land Use and Tenure, Section 8.2). As such, the Regional Planning Interests Act 2014, and the alignment's impact on the matters protected under Regional Planning Interests Act 2014, do not have a bearing on the EIS process, nor is the approval of the EIS contingent on the assessment of the Project's impact on areas of regional interest. Notwithstanding this, the Project's impact on areas of regional interest protected under the Regional Planning Interests Act 2014 has been assessed to provide a comprehensive assessment of the Project's impact on agricultural, environmental and societal values present within both the temporary and permanent disturbance footprints of the alignment.</p> <p>As described in Chapter 2: Project Rationale, Section 2.8-2.10 of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rails program of works. Traversing State Forest is also to be minimised in balance with other environmental impacts.</p> <p>To quantify the impact of the Project on recognised areas of regional interest however, an analysis is presented in Chapter 8: Land Use and Tenure, Table 8-9 by the Project, which provides a total of areas of regional interest in relation to the Project footprint. Impacts of the Project on agricultural land and their associated values including Agricultural Land Classification Class A and Class B and Important Agricultural Areas have been avoided, minimised or mitigated through design and construction considerations.</p> <p>Chapter 8: Land Use and Tenure, Section 8.5.4 (Table 8-46), states that where loss of agricultural land was unable to be avoided, refinement of the horizontal alignment considered (among other environmental, social, cultural, economic and technical constraints), placement of the rail corridor such that it traverses around, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA. Intensive livestock operations, including feedlots and poultry farms, have also been avoided where possible.</p> <p>A combination of geographical and bio-physical factors contribute to land being of high agricultural value. New agricultural land is unable to be developed on the basis of these over-arching factors therefore like-for-like replacement for loss of agricultural land in a location that would benefit the impacted landowner is not feasible. Where the permanent disturbance footprint is unable to avoid the severance of agricultural land and enterprises due to the partial acquisition of a property, acquisition will be investigated in consultation with landowners. The consideration of partial or full acquisition of these properties will be determined on a case-by-case basis during detailed design, in accordance with the Acquisition of Land Act 1967 (Qld). Ongoing consultation with individual landowners will occur to determine if the agricultural enterprise can remain viable (Chapter 8: Land Use and Tenure, Section 8.6.2).</p> <p>Where the permanent disturbance footprint is unable to avoid the severance of agricultural land, the Project will require the acquisition of agricultural land, which may affect the operations of agricultural enterprises and grazing properties. Where land is to be acquired by the compulsory acquisition process in accordance with the Acquisition of Land Act 1967 (Qld), compensation will be assessed on an individual basis based on the market value of the land as at the date of resumption. Injurious affection will be applied to landowners impacted by severance or to the balance of the land (Section 8.6.2 and Table 8-51 of Chapter 8: Land Use and Tenure).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land Use and Tenure Section 8.2 Section 8.5.4 Section 8.6.2 Table 8.9 Table 8-46 Table 8-51
141b	141b.0052	Private	Land Use and Tenure		Draft EIS does not discuss the compatibility of the Project with existing and proposed land uses in regional plans and local government planning schemes and has not proposed any avoidance or mitigation measures.	Move the line to forest land to protect the large area of strategic cropping land including the floodplain.	<p>The EIS addresses the regional plan and zoning of land within the relevant planning schemes. The revised draft EIS has been updated with further detail presented in Chapter 8: Land Use and Tenure, Section 8.5.4 Compliance impact assessment, which considers the consistency of the Project with the land use and planning instruments relevant to the Project footprint and Project activities, being the:</p> <ul style="list-style-type: none"> State Planning Policy (July 2017) Darling Downs Regional Plan (October 2013) ShapingSEQ (August 2017). Goondiwindi Regional Planning Scheme 2018 Toowoomba Regional Planning Scheme 2012 <p>As the Project has been declared a coordinated Project, the provisions of local government planning schemes do not apply and therefore assessment of the Project's consistency with the planning schemes is not required.</p> <p>As described in Section 2.8-2.10 of Chapter 2: Project Rationale of the revised draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across the Inland Rail program of works. Traversing State Forest is also to be minimised in balance with other environmental impacts.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land Use and Tenure Section 8.5.4
141b	141b.0053	Private	Noise and Vibration	Mitigation measures	Draft EIS fails to demonstrate that noise mitigation measures can protect the submitter's family or their residence, their B&B cabin or their three campsites from noise impacts, especially sleep deprivation. See attached noise report for further information.	Apply noise criteria suggested in attached noise report. ARTC provide and maintain noise mitigation (see submission for suggestions).	<p>The revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. The revised assessment is included in Sections 7 to 12 within Appendix: W Noise and Vibration Assessment - Railway Operations and Section 16.8 of Chapter 16: Noise and Vibration.</p> <p>The operational railway noise assessment considers both the overall noise exposure during a day (24 hour) and the highest individual single event maximum noise levels (which are not averaged over time). These noise metrics specifically address aspects such as long term noise amenity and annoyance/ disturbance from individual noise events during the day and night time. The assessment methodology for noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>The report provided with the submission 'Rail Noise Impacts on Woodspring' (Noise Measurement Services Pty Ltd, 2021) discusses the World Health Organisation (WHO) guidelines and the Environment Protection (Noise) Policy 2019 as criteria with which Inland Rail operations should comply. Neither of these documents are applicable to Inland Rail.</p> <p>The WHO guideline is specifically written for Europe with the findings primarily based on research into noise exposure within populations surrounding airports and does not form part of contemporary noise policy in Australia. The Environment Protection (Noise) Policy is subordinate legislation to the Environment Protection Act, 1994 which excludes the 'ordinary use of rail transport infrastructure' (Schedule 1, Part 1) from assessment under the Policy.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise community disruption in the construction works stage and through to operations. All operational noise mitigation measures will be in place prior to commencement of Inland Rail operations.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 7 Section 8 Section 9 Section 10 Section 11 Section 12 Section 17 Section 17.4
141b	141b.0054	Private	Traffic and Transport	Level crossing	There are 20 active level crossings proposed, which fails to give weight to the 'no new level crossings' policy of the Office of the National Rail Safety Regulator.	Refer to attached traffic engineering advice which identifies an alternative location for the level crossing 2 km north from the proposed location.	<p>The submitter has provided a report reviewing the location of the Millmerran - Inglewood Road level crossing - and provides an alternative level crossing location. The report has been reviewed and the analysis is found to be very limited as it does not take into account the rail alignment requirements nor does it align with the level crossing policies noted below. The alternative level crossing position cannot be supported on this basis.</p> <p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>The approach includes an Australian Level Crossing Assessment Model (ALCAM) assessment for all level crossings as one of the main inputs into the decision process. ALCAM is the only nationally accepted risk tool for level crossings and has been endorsed by state and territory ministers. An overview of the process followed in the assessment of road-rail interfaces across the Project and the methodology followed in the development of road-rail interface treatments is outlined in Appendix BT. This overview provides Coordinator-General, DTMR and the Community with further transparency on the design process undertaken to date and to understanding that all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations throughout the Project. Many road rail interfaces do not meet a topography-based grade separation, nor any criteria triggering an automatic grade separation in accordance with the detailed Public Level Crossing Treatment methodology.</p> <p>In January 2023 Office of the National Rail Safety Regulator (ONRSR) undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7
141b	141b.0055	Private	Economics	Level crossing	Draft EIS fails to give a balanced assessment of the time loss and economic cost impacts on road vehicle owners and the community arising from wait times at active level crossings.	Suggests more accurate description of the overall delay and cost of a road vehicle being held to allow a train to cross.	<p>The revised draft EIS describes the anticipated queue lengths, journey times and level of service for each level crossing across two future year scenarios (2026 and 2040). The EIS traffic analysis indicates that delays at level crossings will, in most instances, be 5 seconds or less. The EIS describes initial mitigation measures adopted for level crossings. These include:</p> <ul style="list-style-type: none"> Grade-separation crossings of existing roads have been adopted instead of level crossings where feasible Where grade separation is not feasible, the design has been developed in accordance with ARTC Engineering Code of Practice - Level Crossings (available on the ARTC extranet) Additional physical controls at level crossings such as boom gates and warning lights are provided Safety audits will be undertaken for all public level crossings included in the detailed design. Railway safety messages will be provided to the community through awareness activities, community engagement activities and campaigns to increase public awareness, including messaging for safety around level crossings. <p>The economic costs of traffic wait times or other costs have not been captured in the economic assessment (Appendix Y: Economic Impact Assessment). Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Qld Government costs have not been included in the Appendix Y: Economic Impact Assessment.</p> <p>Refer to above information and the potential impacts and mitigations discussed in Sections 20.5.2 in Chapter 20: Traffic, Transport and Access.</p>	Chapter 18: Economics Section 18.3 Chapter 20: Traffic, Transport and Access Section 20.5.2 Appendix Y: Economic Impact Assessment Section 5.1 Section 5.5
141b	141b.0056	Private	Traffic and Transport	Road safety	Draft EIS fails to attribute sufficient importance to the crash risk associated with public level crossings. Proponent has designed the Project on the basis of standards which might be permissible at a mediocre level now, rather than what is appropriate for the future.	Nil.	<p>ARTC recognises the complex decision-making process surrounding public road rail interfaces. ARTC references to the key level crossing policies in Queensland:</p> <ul style="list-style-type: none"> The Office of the National Rail Safety Regulators (ONRSR) Level Crossing policy (ONRSR, 2019) Queensland Level Crossing Safety Strategy 2012-2021. <p>In response to the above, ARTC has updated the revised draft EIS with an additional appendix, Public level crossing treatment methodology. This is intended to provide Agencies and the Community with further transparency on the design process undertaken. Noting all designs and ALCAM inputs have been reviewed by the appropriate road manager at all public road rail interface locations across the Project.</p> <p>Section 3.6 and Section 3.7 of Appendix AA: Traffic Impact Assessment discusses proposed road-rail interface locations and the approach used regarding ensuring consistent safety-based risk approach to determine crossing treatments.</p> <p>In January 2023 the ONRSR undertook an audit of the Inland Rail Road-Rail Crossing Strategy in Queensland, specifically focussing on the public level crossings in the Border to Gowrie section. The key findings included that ARTC Inland Rail demonstrated that a consistent, systematic, and comprehensive process for the assessment of level crossings is applied to determine adequate conforming treatments, and that the stakeholder engagement process has fed into the updated designs.</p> <p>ARTC has updated the revised draft EIS with details regarding Public level crossing treatment methodology outlined in sub-appendix BT Inland Rail Road Rail Interface Methodology. For more information, please also refer to IR level Crossing Factsheet inlandrail.artc.com.au/level-crossings-fact-sheet/.</p>	Appendix AA: Traffic Impact Assessment Section 3.6 Section 3.7 Appendix BT

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
141c	141c.0057	Private	Noise and Vibration		Noise impact report prepared for the submitter by Noise Measurement Services and wind rose Figure 11.4	Nil.	<p>ARTC acknowledges that the community has raised concerns that current lifestyle and amenity may be impacted by noise impacts during future railway operations. During the community engagement process, noise and vibration has been identified as potential negative impacts to the community along the Project alignment. Refer to Appendix E: Consultation Report.</p> <p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The modelling results are discussed in Sections 7, 8, 9, and 10 of Appendix W: Noise and Vibration Assessment - Railway Operations. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019) (refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations)</p> <p>The noise assessment criteria, adopted from the Interim Guideline are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures. The summary of railway noise assessment is detailed in Section 10 of Appendix W and the recommended mitigation measures are discussed in Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.10 of Chapter 16: Noise and Vibration.</p> <p>The Noise Impact Report - Rail Noise Impacts on Woodspring (Noise Measurement Services Pty Ltd, 2021) is acknowledged by Inland Rail however, the criteria proposed by the consultant for Woodspring dwellings and camp grounds, and the methodology to derive the criteria do not align with the state government's requirements documented in Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
141c	141c.0058	Private	Land Use and Tenure		Aerial photographs of submitter's property and proposed alignment	Nil.	It is acknowledged that the submitter has submitted aerial photographs of their property and proposed alignment.	N/A
141c	141c.0059	Private	Traffic and Transport		Traffic engineering advice prepared for the submitter by PTT Traffic and Transport Engineering	Nil.	This item is the same as item 141b.0054 as this is the supporting document referred to within 141b.0054.	N/A
142	142.0014	Private	Noise and Vibration		EIS also uses outdated WHO night noise guidelines and dismisses the effects of noise and sleep disruption as tentative science, even though WHO has released updated guidelines with more stringent criteria based on nearly a decade of further research. The precautionary principle should be applied.	ARTC should assume that sleep will be disrupted and the effects on health will be significant. The burden of proof falls on ARTC to prove this is not the case, which they have made no attempt to do.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>
142	142.0015	Private	Noise and Vibration		The noise and vibration assessments are flawed for both construction and operation. They fail to take into account the high level of acoustic amenity currently enjoyed by the greenfield sites, do not take into account impacts on sleep and associated health impacts (or the burden of disease this will create), and fail to commit to any methods or levels of noise mitigation. Trigger noise levels used to identify properties requiring mitigation do not reflect current standards.	Require sound mitigation be required to the WHO 2018 environmental noise guidelines.	<p>ARTC acknowledges that the community has raised concerns that current lifestyle and amenity may be impacted by noise impacts during the construction works stage. During the community engagement process, noise and vibration and land use have been identified as potential negative impacts to the community along the Project alignment. Refer to Appendix E: Consultation Report.</p> <p>In accordance with TMR's Transport Noise Management Code of Practice Volume 2 - Construction Noise and Vibration (CoP Vol 2), construction noise impacts are assessed against criteria which are based on measurements of the existing noise environment. As a result of the low existing background noise levels measured, the most stringent allowable construction noise criteria have been adopted for all noise sensitive receptors.</p> <p>The predicted construction noise impacts are conservative and are based on a preliminary construction methodology. During detailed design, a detailed noise assessment will be undertaken based on a detailed construction methodology, and will be used to nominate specific reasonable and practicable measures to mitigate construction noise impacts. The EIS has recommended mitigation measures based on the predicted construction noise impacts, including limiting works during the night wherever possible (Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p> <p>The management of construction noise and vibration will be administered as part of the Project's Construction Environmental Management Plan (CEMP) and is discussed in further detail in Chapter 24: Draft Outline Environmental Management Plan. Under the CEMP, a Construction Noise and Vibration Management Plan will be produced to outline all reasonable and practicable mitigation measures to be used while various construction activities are occurring and ensure compliance with relevant approvals and/or legislation.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during the detailed design stage.</p> <p>The noise assessment criteria, adopted from the Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance.</p> <p>To minimise potential impacts to the community, in particular community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance and support if Inland Rail impacts are having adverse effects on local community members (for specific details, refer to the Social Impact Management Plan within Chapter 17: Social).</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
142	142.0017	Private	Noise and Vibration	Mitigation measures	ARTC's suggested noise mitigation is limited to rail dampers, which are expensive and high maintenance. Europe uses multiple other mitigation options.	If ARTC refuses to avoid the impact by realigning the route through uninhabited areas, then should be required to mitigate noise at the source where it will mitigate the effect for all sensitive receptors. Require ARTC to comply with the development code with respect to property treatments for residential buildings constructed in rail corridors.	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix C of the draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 17.4 of Chapter 16: Noise and Vibration and Section 5 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 16 of Appendix W: Noise and Vibration Assessment – Railway operations. Reasonable and practicable measures will be investigated on a "case by case" basis. Mitigation measures may include the construction of noise barriers where there are a large number of properties potentially impacted or "at-property" treatments for isolated properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. ARTC's Stakeholder Team will continue to liaise with landowners during detailed design and construction works stages of Inland Rail in relation to proposed noise mitigation that may be required. Mitigation and management measures have been proposed in of Chapter 24: Draft Outline Environmental Management Plan.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Section 16.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Section 17</p>
143	143.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
144	144.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. As described in Section 5.6.4 of Chapter 5: Project Description of the Project revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none">▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes▶ Land tenure and ownership of each site▶ Available land area▶ Proximity to supporting infrastructure and services▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation▶ To avoid areas that are within the 1% AEP floodplains where possible▶ Constraints such as significant vegetation communities, threatened species or heritage sites▶ Road access▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1
145	145.0056	State Agency	Noise and Vibration	Mitigation measures	Noise barriers provide opportunities for local communities and artists' to do murals and artwork. Are there intentions to do murals/ artwork on noise barriers at Pittsworth, Yelarbon, Brookstead?	Update the EIS to confirm if murals/ artwork on noise barriers will be included as part of the community engagement process.	Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment includes a review of noise mitigation, including noise barriers. The development and implementation of the conceptual noise barriers will be subject to further detailed studies. Appendix X: Social Impact Assessment Section 8.2.4 includes "ARTC or the Contractor will engage with community members in Yelarbon, Brookstead and Pittsworth, and with GRC and TRC, regarding design treatments that will lessen the impacts of noise barriers on town character".	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 16 Appendix X: Social Impact Assessment Section 8.2.4
145	145.0057	State Agency	Noise and Vibration		The impact of railway noise on new residential dwellings is managed through the declaration of Transport Noise Corridors which requires building work to adhere to the Queensland Development Code MP4.4. TNCs are available SARA and local government mapping systems and are updated as a requirement of a gazette of Transport Noise Corridors. The land designated as a Transport Noise Corridor comprises land within a corridor up to 250 m on both sides of the railway which is significantly affected by noise. This includes railways that carry at least 15 trains per day. The corridor is measured from the boundary of the railway with adjacent land, and then continuing the distance of up to 250 m, depending on the noise contours mapped as a result of rail traffic noise.	Amend the EIS to indicate that ARTC commit to working with TMR to update and gazette the railway corridor as a Transport Noise Corridor so that future development within the TNC can adequately manage and mitigate noise associated with railway operations relevant to MP4.4 under the Building Act 1974.	ARTC commit to discussing the process to update and gazette the railway corridor as a Transport Noise Corridor with TMR. This commitment will be included in the revised draft EIS. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment – Railway operations, Section 17.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
145	145.0058	State	Noise and Vibration	operational rail noise	The scope of the Noise and Vibration Assessment has not adequately considered TMR's Interim Guideline - operational Railway Noise and Vibration (March 2019). This document is a published standard under the Transport Infrastructure Act 1994. A clear assessment has not been made and mitigation requirements for this mandatory part of the Interim Guideline have not been adequately presented/determined.	Update the EIS to provide a noise and vibration assessment in accordance with the mandatory portions of TMR's Interim Guideline - Operational Railway Noise and Vibration (March 2019).	The revised draft EIS has been updated to provide an assessment of railway noise and vibration in accordance with the Department of Transport and Main Road (DTMR) Interim Guideline operational Railway Noise and Vibration (2019). A review of the applicable assessment criteria is provided in Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
145	145.0059	State Agency	Noise and Vibration		Section 14.4.2 does not mention, and therefore it is assumed that it does not include, approved developments within the study methodology area. These developments could be sensitive receivers and likely could be affected by the proposed rail Project.	Update the EIS (including Appendix (Appendix S & T)) to acknowledge and include any approved developments as sensitive receivers within the study area and revise the assessment.	A review of Material Change of Use (MCU) and operational works applications for the local government areas of Goondiwindi and Toowoomba was undertaken to identify potential sensitive land uses, such as residential sub-divisions. The search was based on a six-year period up to 1 July 2022 to be consistent with the typical six-year currency period for an MCU and to align with the timeframes for the preparation of the revised draft EIS. The revised draft EIS noise and vibration assessments have been updated to acknowledge and include any approved, but not yet built, developments as sensitive receivers (see Section 5.1 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic and Section 8.3 of Appendix W: Noise and Vibration Assessment – Railway Operations). ARTC interrogated both the Toowoomba and Goondiwindi councils Development Approval data bases. Approved, but yet to be built developments that are sensitive land uses, have been identified at the time of the revised draft EIS preparation and included in the noise and vibration assessments. Further assessment of approved unbuilt development may be required should any additional applicable developments been approved prior to the notification of the Project approval.	Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Appendix W: Noise and Vibration Assessment – Railway operations Section 8.3
145	145.006	State Agency	Noise and Vibration	operational rail noise	The methodology of the Noise and Vibration Assessment has not been specifically assessed against TMR's Interim Guideline - operational Railway Noise and Vibration (March 2019). This document is a published standard under the Transport Infrastructure Act 1994. TMR drew ARTC's attention to the document during the initial adequacy review of the EIS in September 2019.	Where the assessment does not strictly assess against the requirements of the Interim Guideline, the EIS should clearly document how the selected method may also be used to determine compliance with TMR's Interim Guideline - Operational Railway Noise and Vibration (March 2019). An adequate review should be provided within the assessment to show how the selected method compares with the requirements of the Interim Guideline. The review should provide sufficient detail on the following aspects: <ul style="list-style-type: none">▶ Source data (i.e. 95th percentile vs Single Event Maximum)▶ Modelling method (algorithm, inputs and assumptions, with differences noted for various distances from the source)▶ Criteria (for all mandatory components of the Interim Guideline) Comparison - A sample area modelled and assessed under the selected Project method verses the requirements of the Interim Guideline should be provided. The sample area should have sufficient variation to allow for the differences noted to be presented. For non-residential receivers this may not be possible, and the assessment should clearly identify these locations and assess them in accordance with TMR's Interim Guideline - operational Railway Noise and Vibration (March 2019).	The revised draft EIS has been updated to provide an assessment of railway noise and vibration in accordance with the Department of Transport and Main Road (DTMR) Interim Guideline operational Railway Noise and Vibration (2019). A review of the applicable assessment criteria is provided in Section 3 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.8 of Chapter 16: Noise and Vibration.	Chapter 16: Noise and Vibration Section 16.8 Appendix W: Noise and Vibration Assessment - Railway Operations Section 3
145	145.0062	State Agency	Noise and Vibration		The EIS should assess new and upgraded roads in accordance with the Transport Noise Management Code of Practice Volume 1. The current level of detail and assessment is not consistent with this code.	Update the EIS including Appendix (Appendix S) to assess as per the requirements of the Transport Noise Management Code of Practice Volume 1. Including the design of noise mitigation where required.	The road traffic noise impact assessment has been updated to meet the requirements of the Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 1 (CoP V1). This included pre-construction noise measurements, verification of a 3D model against the measurement results, and 3D model predictions of future road traffic noise levels. Refer to Section 8 within Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.	Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 8
145	145.0063	State	Noise and Vibration	construction airborne noise	The noise assessment of the borrow pit has been made against the construction noise criteria. Please confirm if this activity is an environmentally relevant activity (ERA).	Confirm if the borrow pit is an ERA. Update the EIS including Appendix (Appendix S) to assess against the ERA requirements including updated noise criteria (if required).	The viability and feasibility of accessing material from the potential borrow pit sites will be confirmed during the detailed design stage of the Project (post-EIS approval). Assessments of each borrow pit location will be undertaken during detailed design to determine material usability, volumes, environmental and social impacts and potential secondary approval triggers. The revised draft EIS has been updated to include noise modelling at six Project borrow pit sites as detailed in Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.	Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
145	145.0069	State Agency	Noise and Vibration	Cumulative impacts	Cumulative impacts require further assessment and do not include the cumulative impacts from road/ rail operations with the multi-modal L_{Aeq} criteria from TMR's environmental emissions policy.	The EIS should be updated to determine if additional mitigation is required to address cumulative impacts. The cumulative noise impacts from road and rail operations combined should also be assessed with multi-modal L_{Aeq} criteria within the environmental emissions policy. Update the EIS accordingly.	<p>Cumulative impacts of road and rail noise</p> <p>Cumulative impacts of road traffic and railway noise are discussed in Section 16.12 of Chapter 16: Noise and Vibration in the revised draft EIS. The rail alignment of the Project will, in places, intersect and be alongside the existing road network and the future new and upgraded roads proposed within the Project.</p> <p>A table of 24-hour L_{Aeq} noise levels from road and railway noise has also been provided in Appendix J of Appendix W: Noise and Vibration Assessment Railway operations. The Table provides results for receptors where rail transport noise would be relevant on the alignment, with further discussion also provided in Section 15.1 of Appendix W.</p> <p>While the policies and guidelines referenced in this assessment do not specify criteria or management objectives for combined road and railway transport noise, an overview assessment of potential cumulative transport noise has been undertaken to inform the revised draft EIS. The assessment addresses concerns raised regarding the potential for road traffic and railway operations to result in cumulative transport noise impacts. DTMR's Development Affected by Environmental Emissions from Transport Policy, Version 4 (October 2017), assess cumulative impacts from road and rail for new developments using criteria which can be considered to assist in quantifying and assessing cumulative impacts from the Project.</p> <p>DTMR's Development Affected by Environmental Emissions from Transport Policy, Version 4 (October 2017) provides the following guidance in Section 1. Introduction:</p> <p>The Development Affected by Environmental Emissions from Transport Policy (the policy) outlines the Department of Transport and Main Roads (TMR) policy position in relation to the development of land affected by environmental emissions from linear state transport corridors and infrastructure. This includes busway, railway, light rail and state-controlled road corridors and infrastructure.</p> <p>and provides the following statement regarding application of the policy Section 3. Application of the policy:</p> <p>The policy applies throughout Queensland to development proposals for new sensitive development on land affected by environmental emissions generated from State transport corridors and government supported transport infrastructure including:</p> <ul style="list-style-type: none"> Busway corridors and busway transport infrastructure Railway corridors, rail transport infrastructure and other rail infrastructure light rail corridors and light rail transport infrastructure State-controlled roads and road transport infrastructure. <p>Hence the policy is not applicable to the development of transport infrastructure. Notwithstanding the above, a review of cumulative impacts from the Project has been undertaken by comparing the predicted new rail and new/ upgraded road noise levels predicted for operational rail and road noise.</p> <p>The policy provides three sets of criteria depending on the type of state transport corridor. These are:</p> <ol style="list-style-type: none"> Railway OR Multimodal corridor which includes a railway Busway or Light Railway State Controlled Road or Multimodal corridor which does not include a railway or includes <15 single railway events. <p>As Inland Rail will be a railway with over 15 trains per day the Railway OR Multimodal corridor criteria are considered most comparable. The criteria is detailed in Table 3: Primary (external) noise criteria for new sensitive development, DTMR's Development Affected by Environmental Emissions from Transport Policy, Version 4 (October 2017). This is also presented and discussed in Section 16.12 of Chapter 16: Noise and Vibration.</p> <p>Comparing the DTMR Development Affected by Environmental Emissions from Transport Policy with the Interim Guideline noise criteria for new railways which has been adopted for the Project, the Interim Guideline criteria are 5dB more stringent for L_{Aeq} (24hr) and SEM. At the majority of sensitive receptors close enough to both the road network and railway alignment to potentially experience cumulative transport noise, railway noise levels are expected to be the dominant noise contribution (during train passby). Hence at sensitive receptors that exceed the rail noise criteria (which is more stringent than the cumulative criteria) they will be provided with mitigation for rail noise, which also assists in controlling cumulative road and rail noise. Applying the DTMR's Development Affected by Environmental Emissions from Transport Policy does not result in any additional triggers.</p>	Chapter 16: Noise and Vibration Section 16.2 Appendix W: Noise and Vibration Assessment - Railway Operations Section 15.1
145	145.007	State Agency	Noise and Vibration	Mitigation measures	The Section 11.125 of the ToR states: Describe any expected exceedances of noise and vibration goals or criteria following the provision or application of mitigation measures and how any residual impacts would be addressed. However, operational rail and road mitigation measures have not been adequately designed and therefore it is unknown what level of mitigation is considered reasonable and practicable. The EIS should clearly demonstrate mitigation requirements and residual exceedances. The noise barrier heights reviewed should not be limited in height to 4 m above ground. Each receiver (or group of receivers) which is predicted to exceed the criteria shall be specifically addressed in the report and mitigation options discussed. Where the Project changes the road structure the noise barrier option should clearly present and address this issue and ensure that it does not obstruct crossings.	Update the EIS and revise the assessment to determine the level of noise barrier and other mitigation requirements for sensitive receivers consistent with the requirements of the ToR. The assessment should clearly state if TMR's Interim Guideline - operational Railway Noise and Vibration (March 2019) requirements have been met. The residual exceedances of criteria shall be clearly stated and why noise mitigation on rail corridor land, commercial corridor land or future railway land is not reasonable or practicable. It is expected that the EIS provides a clear review and recommend reasonable and practicable mitigation for each receiver (or group of receivers).	<p>The road traffic noise impact assessment has been updated to meet the requirements of the Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 1 (CoP V1). This included pre-construction noise measurements, verification of a 3D model against the measurement results, 3D model predictions of future road traffic noise levels and recommended the CoP's road traffic noise mitigation hierarchy. Refer to Section 7 within Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>The draft revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers greater than 4 m in height, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.10 of Chapter 16: Noise and Vibration).</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - construction and Road Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
145	145.0071	State Agency	Noise and Vibration		Table 14.39 states that no noise mitigation will be installed until after the Project is operating and additional noise monitoring has been completed. This requirement is not standard practice (i.e. delay the installation of treatment). The noise (and other) mitigation shall be determined as part of the EIS and installed before operations commence. Noise monitoring is typically conducted after the Project is operational to confirm that noise treatments (i.e. noise barriers) are performing as predicted.	Update the EIS (including Chapter 22) and revise the assessment to determine the level of noise barrier and other mitigation requirements for sensitive receivers consistent with the requirements of the ToR. Mitigation must be determined as part of the EIS and installed before operations commence. Update the EIS (inc Chapter 22 Outline Environmental Management Plan and Appendix Z Proponent Commitments) accordingly.	<p>Noise mitigation measures (e.g. noise barriers, at-property treatments) will be further investigated during the detailed design stage and installed prior to Inland Rail operations commencing (Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations). Compliance noise and vibration monitoring will be undertaken within 6 months of Project opening to ensure that mitigation measures are adequate. If the results of monitoring indicate additional exceedances of the operational noise and vibration criteria, then additional reasonable and practicable mitigation will be implemented in consultation with affected property owners.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Railway Operations Section 17
145	145.0072	State	Noise and Vibration	operational rail noise	Chapter 14 has not considered the potential noise impacts of the future operational railway on future sensitive land uses. Table 14.39 notes potential noise walls or barriers or earth mounds at the rail corridor boundary to mitigate operational rail noise to a group of sensitive receptors.	<p>The proposed railway is likely to generate environmental emissions that may impact upon existing and future residential uses. It is recommended that the development be designed, constructed and implements mitigation measures to meet the relevant environmental emission criteria for noise set out in the Department of Transport and Main Roads' Development Affected by Environmental Emissions from Transport Policy, Version 4 (October 2017), Table 3 Rail Noise External Criteria, referenced in the ToR, which is available at: tmr.qld.gov.au/business-industry/technical-standards-publications/development-on-land-affected-by-environmental-emissions</p> <p>Potential noise barriers and earth mounds in the existing railway corridor will need approval/ licences from the railway manger (QR) under Section 255 of the Transport Infrastructure Act 1994. The design and construction of noise barriers will need to comply with Queensland Rail's Civil Engineering Technical Requirement CIVIL-SR-014 and Transport and Main Roads' Specifications MRTS04 General Earthworks.</p>	<p>The revised draft EIS noise and vibration assessments have been updated to acknowledge and include any approved, but not yet built, developments as sensitive receivers. ARTC interrogated both the Toowoomba and Goondiwindi Regional Council's Development Approval databases. Approved, but yet to be built developments that are sensitive land uses, have been identified at the time of the revised draft EIS preparation and included in the noise and vibration assessments (Section 8.3 of Appendix V: Noise and Vibration Assessment - Railway Operations). Further assessment of approved unbuilt development may be required should any additional applicable developments be approved prior to the notification of the Project approval.</p> <p>As per the Department of Transport and Main Roads' Interim Guideline - operational Railway Noise and Vibration, a sensitive land use is a location which may be affected by transport noise and/or vibration where there is an existing land use listed in Section 2.1 or an approved development application for land uses listed in Section 2.1.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. The revised assessment is presented in Appendix: W Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is not responsible for mitigating railway noise for new, currently unapproved developments establishing next to Inland Rail. These developments must comply with the Department of Transport and Main Roads' Development Affected by Environmental Emissions from Transport Policy, Section 3 of the Policy states that the Policy applies 'to development proposals for new sensitive development on land affected by environmental emissions generated from state transport corridors and government supported transport infrastructure'. The Policy and the external noise criteria therefore do not apply to ARTC, but to the developer establishing next to the railway.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Railway Operations Section 4 Section 17
145	145.0195	State	Noise and Vibration	Baseline/ background sampling	It is unclear in the EIS if the baseline noise at the 12 potential borrow sites has been established so that if the sites become operational a comparison of noise levels can be accurately made. If this baseline assessment is not undertaken until detailed design, it is likely there may not be sufficient time to collect an adequate baseline level.	Update the EIS to confirm if baseline noise monitoring was undertaken for the borrow pit locations.	<p>Baseline noise monitoring was undertaken across the Project to determine appropriate construction noise criteria, as per the Department of Transport and Main Roads' Transport Noise Management Code of Practice Volume 2 - construction Noise and Vibration. At each monitoring location, background noise levels were measured which were consistent with the application of the minimum (most stringent) allowable noise criteria. As a result, construction noise impacts, including those from borrow pits, were assessed against these minimum noise criteria. Additional noise monitoring would be unlikely to yield different noise criteria, and if it did, those criteria would be less stringent than those currently nominated.</p> <p>Section 4.2 and Section 5.4 of the Appendix V: Noise and Vibration Assessment - Construction and Road Traffic provides further discussion on the baseline environmental noise and vibration surveys that were undertaken in 2018, 2022 and 2023. In consideration of the current reference design, additional baseline noise monitoring surveys were completed for the Project including a monitoring activity at the site of the proposed Heckendorf Road borrow pit site (i.e. Lot 111 on DY182, Millmerran-Ingleswood Road, Clontarf).</p> <p>The revised draft EIS has been updated to include additional noise modelling of the six Project borrow pit sites (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic; Section 16.6.2 of Chapter 16: Noise and Vibration).</p>	Chapter 16: Noise and Vibration Section 16.6.2 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.2 Section 5.4 Section 6.1
145	145.0196	State	Noise and Vibration	Modelling	It is unclear in the EIS if the increased height of the Cunningham and the Gore Highways was modelled due to them being placed on grade separation crossings. This will be particularly relevant for vehicles (especially road-trains) accelerating up onto the bridges when travelling away from the receptors.	Update the EIS to confirm that the height increases were included in the assessment.	<p>ARTC can confirm that road height increases due to road separations have been accounted for by the noise modelling assessment. The results of the operational road traffic noise assessment are discussed in Section 8.1 and Section 8.2 of Appendix V: Noise and Vibration Assessment construction and Road Traffic, and Section 16.7 of Chapter 16: Noise and Vibration. Noise mitigation measures are also discussed in Section 8.3 of Appendix V: Noise and Vibration Assessment construction and Road Traffic, which considers various solutions such as noise barriers, at-property treatments and quieter road pavement surfaces to address impacts to receptors along the alignment.</p>	Chapter 16: Noise and Vibration Section 16.7 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 8.1 Section 8.2 Section 8.3
145	145.0197	State Agency	Noise and Vibration		The new Gore Highway at Brookstead is not listed in the table.	Update the EIS to include the new Gore Highway at Brookstead.	<p>ARTC can confirm that changes to the Gore Highway near Brookstead are considered road upgrades and have been included under upgraded roads report sections.</p> <p>The operational road traffic noise assessment has included the Gore Highway at Brookstead. The operational road traffic assessment is discussed in Section 8 and Appendix G of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p>	Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 8 Appendix G
145	145.0272	State Agency	Noise and Vibration	Proponent commitments	Noise and vibration mitigation measures are to be installed during construction activities prior to operation of any rolling stock. Noise and vibration mitigation measure will be installed to ensure rolling stock does not exceed criteria as specified in Table 2.2.1, 2.2.2 and 2.2.3 as specified in TMR's Interim Guideline operational Railway Noise and Vibration.	Noise and vibration mitigation measures must be installed during construction activities prior to operation of any rolling stock in accordance to rail operational criteria as specified in TMR's Interim Guideline operational Railway Noise and Vibration. Amend the Proponent Commitments and Outline Environmental Management Plan accordingly.	<p>Noise mitigation measures (e.g. noise barriers, at-property treatments) will be further investigated during the detailed design stage and installed prior to Inland Rail operations commencing, where it is deemed reasonable and practicable. Compliance noise and vibration monitoring will be undertaken within 6 months of Project opening to ensure that mitigation measures are adequate. If the results of monitoring indicate additional exceedances of the operational noise and vibration criteria, then additional reasonable and practicable mitigation will be implemented in consultation with affected property owners. The proposed mitigation measures are further discussed in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
146	146.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons: a. Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. b. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. c. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. d. Benefits to the town and wider community as there is potential for increase in economic activity. e. Showground site could make use of infrastructure install for the camp, once the camp was removed. f. Emergency service would be more readily available if required.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included: <ul style="list-style-type: none">▶ The proximity of the accommodation to likely construction sites for fatigue-management purposes▶ Land tenure and ownership of each site▶ Available land area▶ Proximity to supporting infrastructure and services▶ Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation▶ To avoid areas that are within the 1% AEP floodplains where possible▶ Constraints such as significant vegetation communities, threatened species or heritage sites▶ Road access▶ Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties. While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.	Chapter 3: Legislation and Project Approval Process Section 3.4.5 Section 3.4.38 Chapter 5: Project Description Section 5.6.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.1
146a	146a.0001	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very few residents from the impacted communities participate as it was poorly advertised and promoted by ARTC within the region. The SIA survey does not represent views of the community members who may be impacted by the Project.	The SIA Survey should be repeated.	This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope. Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
146a	146a.0002	Private - Brookstead	Social Impact Assessment	Mitigation measures	No detail is provided about how the social impacts identified will be minimised or mitigated and as such, the draft EIS is incomplete according to TOR condition 11.140.	The draft EIS is incomplete due to the omission of a Community Wellbeing Plan that will not be completed until the detailed design phase. The true social impact on the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. The detail is scant and is 'not yet available'.	Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Section 8 of revised draft EIS Appendix X: Social Impact Assessment provides a comprehensive Social Impact Management Plan addressing identified impacts across the following categories: community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 8 Section 8.5.6
146a	146a.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A
146	146a.0004	Private - Brookstead	Noise and Vibration	operational rail noise	ARTC has not provided sufficient information to the communities of details surrounding the impacts of the train noise and vibration and have not considered feasible alternatives for noise and vibration solutions to move the rail further from the residences in the communities. This is in direct violation of Section 6.7 of the TOR.	The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the communities from B2G cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment – Railway operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. However, concept noise barriers have been presented in Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17.4). The preferred location for the proposed rail corridor (as presented in the revised draft EIS Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 17 Section 17.4

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
146a	146a.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. ARTC is committed to working directly	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected school's site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
146a	146a.0006	Private - Brookstead	Stakeholder Engagement		ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ratio between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach. The lack of outcome measurements not only means there is no data on how effective the stakeholder engagement process has been, but more importantly that there is no accountability on the behalf of ARTC to evaluate their effectiveness.	Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation for the B2G region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses. The SIA survey must be undertaken again as well as a Stakeholder satisfaction survey must be presented as part of the EIS process to provide credible feedback and evidence on ARTCs stakeholder engagement process. draft EIS should be rejected on the incomplete and inconclusive nature of information needed to effectively comment on environmental and social impact.	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 2.1 Section 4.1 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
147	147.0002	Private	Noise and Vibration		Submitter's farm homestead is located 100 m from construction site and 150 m from proposed rail line. ARTC contacted submitter to inform of noise impacts and outlined next step is to discuss mitigation measures. ARTC did not follow up on mitigation measures. Style and design of homestead is not practical to modify with sound insulation and double glazing. It also cannot be moved. Question whether ARTC has considered prevailing wind speed and direction in their sound/ noise level modelling.	Only compensation practical is to build a new house 350-450 m from the rail corridor.	<p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 6 Section 10 Section 12.3 Section 17 Appendix G
147a	147a.0004	Private	Project scope		Clarity sought around the meaning of the 'study area' identified over the submitter's property. See submission for maps. What is ARTC studying? How long will the area stay a 'study area'? Will the area preclude development and/or farming activities? How will ARTC study this area if they do not have access?	There should be a time limit that the 'study area' can remain. If not, results of future legal actions may result increased costs to tax payers. Simple questions that someone negatively impacted by the Project would like straight answers to.	<p>A Corridor Options Report for the Borer to Gowrie Rail Project was completed in 2017, overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM. The report was made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>The report considered several options and recommended the alignment from the New South Wales border via Wellcamp Charlton. The Australian government supported this alignment and proposed a two-kilometre-wide study area to be progressed through ARTCs phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale, Section 2.8 and 2.9 of the revised draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website (Chapter 2: Project Rationale, Section 2.9.3).</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
148	148.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix V: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
148	148.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
149	149.041	State Agency	Noise and Vibration	construction vibration	Section 7.9 contains very little information on blasting, a contributor to Potential construction Impacts, Airborne Noise and Ground Borne Vibration. A separate section on blasting has been added which does not address the first two impacts (Airborne Noise and Ground Borne Vibration). The criteria described in Table 26 Recommended Minimum Working Distances for Vibration Intensive Equipment, only mentions controls for ground vibration, effectively ignoring blast overpressure and flyrock resulting from poor blast design and execution. This is considered a deficiency that needs to be corrected and the previously suggested amendments should be incorporated into the EIS. This includes: In accordance with Explosives Regulation 2017, Section 152(a) Use of Blasting Explosives. A prescribed shotfirer must use blasting explosives as required under Australian Standard 2187 Part 2: 2006, use of explosives. This standard includes environmental controls for overpressure, vibration and flyrock. Sub-standard performance outcomes from blasting resulting in referrals to the Explosives Inspectorate would be measured against the criteria in the legislation and its reliance on AS2187.2:2006. It is suggested that the maximum permissible charge weight to meet the sensitive structure vibration criteria in Transport and Main Roads (TMR) document CoP Vol 2 is shown in Table 27 Charge Mass Ranges for Set Distances. However, when referring to TMR CoP Vol 2 it does not include Table 27. It is unknown where the information in the Table 27 and Table 28 originates? Both tables are unreferenced and do not come from AS2187.2:2006, although it is possible that they may be derived from the calculations listed in the Standard.	This Section of the EIS is wholly unsatisfactory and should be re-written to incorporate blasting impacts. Amend to include the following information under Blasting (page 63): In accordance with Explosives Regulation 2017, Section 152(a) Use of Blasting Explosives A prescribed shotfirer must use blasting explosives as required under Australian Standard 2187 Part 2: 2006, use of explosives. This standard includes environmental controls for overpressure, vibration and flyrock.	<p>The construction blasting assessment within the draft revised EIS, has assessed blasting and has been assessed separately to construction airborne noise and ground borne vibration. This is because airblast overpressure and blasting ground borne vibration are assessed against specific blasting criteria. Blasting impacts have been assessed in accordance with DTMR's CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2 (see Section 3.3, Appendix V: Noise and Vibration Assessment – Construction and Road Traffic).</p> <p>The blasting assessment includes:</p> <ul style="list-style-type: none"> The nominated criteria Airblast and ground vibration propagation formulae from AS 2187.2, including worst-case assumptions of propagation constants in the absence of detailed geotechnical information Minimum distances between potential blasting locations and sensitive receptors Predicted maximum blasting charge masses for various distances from blasting. <p>There are no ToR or legislative requirements to assess flyrock impacts, including under CoP Vol 2, and flyrock impacts have not been assessed. ARTC's specialist blasting contractors will design and implement all blasts to prevent impacts from flyrock at sensitive receptors near to the blast locations. The design of individual blasts occurs as part of the construction stage and is informed from localised trial blasts to optimise the blast parameters for the control of air blast over pressure, blast induced vibration, and flyrock.</p> <p>Mitigation measures in relation to blasting are discussed in Section 16.10, Chapter 16: Noise and Vibration. ARTC has incorporated text consistent with the requirements of the CoP Vol 2 regarding the use of AS 2187.2 for measurement and blasting and this has been included in Section 16.10. The following mitigation measure has also been included: "In accordance with Explosives Regulation 2017, Section 152(a) Use of Blasting Explosives, the construction contractor will engage a suitably qualified and prescribed shotfirer to use blasting explosives in accordance with Australian Standard 2187 Part 2: 2006, use of explosives. This standard includes environmental controls for overpressure, vibration and flyrock."</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic</p> <p>Section 3.3</p>
149	149.042	State Agency	Noise and Vibration	construction vibration	Within Section 3.5.11 there is reference to blast caps and detonators. It is unsure what the term blast caps refers to? Blasting caps is an obsolete term and are now referred to as detonators.	The use of the term blast caps within this Section and elsewhere in the EIS should be removed and substituted with detonators.	The term 'blast caps' has been removed from the revised draft EIS.	N/A
149	149.043	State Agency	Noise and Vibration	construction vibration	Section 5.4.0, Table 5.30 - For noting: <ul style="list-style-type: none"> A Blasting Contractor engaged to perform blasting activities will also have to consider security of the explosives for the entire duration of the task. Blasting Contractors will need to maintain a Security Management System. Segregation of incompatible products will also have to be considered. 	Nil.	<p>Chapter 5: Project Description Section 5.6.14 states "Where explosives are used during construction, the works will be undertaken by the appointed licenced blasting contractor in accordance with the Explosive Act 1999 (Qld) and AS 2187.2:2006—Explosives—Storage and Use: Part 2: Use of Explosives (Standards Australia, 2006).</p> <p>The blasting contractor will need to maintain a Security Management System and prepare a Blast Management Plan for the task to ensure that potential impacts are properly assessed and managed. The blasting contractor will be responsible for the security of the explosives for the duration of the task, including the segregation of incompatible products."</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.14</p>
149	149.044	State Agency	Noise and Vibration	construction vibration	Table 5.26 - For noting: For any construction blasting relating to earthworks, tunnelling or drainage, the licenced shottfirer and blasting contractor will have to determine the blast design and quantity of explosives to complete the task.	Nil.	<p>The air-blast and vibration management criteria used throughout Chapter 16: Noise and Vibration have been developed in line with recommendations from the CoP Vol 2. Guidance was referenced from Australian Standard (2006) AS 2187.2 (Explosives – Storage and use Part 2: Use of explosives) to calculate potential air-blast and ground vibration levels from blast events. Section 16.6 of Chapter 16: Noise and Vibration states that "In practice each blast will be carefully planned by a specialist blasting contractor to control the air-blast and vibration levels."</p> <p>As part of the assessment for the revised draft EIS, the blasting assessment includes calculations to determine the blast parameters that are expected to control the emissions to meet the air-blast and blast vibration criteria.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p>
151	151.0001	Community Group	Noise and Vibration		Yelarbon silos - sound barriers not to obstruct the view of the silos and be constructed in front of them	Use other sound reduction measures other than barriers in front of silos	<p>The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers.</p> <p>Mitigation measures provided as part of the revised draft EIS (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.10 of Chapter 16: Noise and Vibration), proposed a concept noise barrier in Yelarbon to mitigate railway noise impacts on homes and businesses. The noise wall design in Yelarbon will be progressed during detailed design with consideration of the silo art, hydrology and pedestrian connectivity. Depending on its location, height, materials and length, a noise wall could affect views to the Yelarbon silo art from the viewing platform on the other side of the rail line.</p> <p>The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3: Yelarbon rest area has been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design.</p> <p>An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area. As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Impact Assessment, Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and managers.</p> <p>ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos are affected by noise walls, ARTC would facilitate provision of mitigation measures, e.g. a complementary mural on the noise wall and/or roadside landscaping, in consultation with the Yelarbon community and Goondiwindi Shire Council.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2.4</p> <p>Section 9.1.4</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
151	151.0003	Community Group	Noise and Vibration		Permanent sound monitors installed prior to commencement of trains	Collection of noise monitoring data	<p>A programme of noise and vibration monitoring is recommended to be undertaken within 12 months of the commencement of railway operations on the Project. The purpose of the monitoring is to quantify the rail noise and vibration levels from the daily rail operations and assess the Project's compliance with any relevant conditions of approval relating to noise and vibration emissions.</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16.8, provides further detail on the recommended programme of noise and vibration monitoring for the Project.</p>	<p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 16.8</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
152	152.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to and surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>
153a	153.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that:</p> <ul style="list-style-type: none"> Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'. 	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment - Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment - Railway Operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
153	153.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to and surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>
153	153a.0001	Private - Brookstead	Noise and Vibration	operational rail noise	Residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors; Section 11.4 (from the rolling stock combined with additional signals from alarm bells and train horns). Chapter 14 states that there is potential for noise (from construction activities and/or Project traffic) near the Brookstead, Southbrook and Yelarbon State Schools to impact on the learning environment of the schools. Lack of detailed information provided by the proponent surrounding the impacts of the train noise and vibration on the Brookstead community. Feasible alternatives for noise and vibration solutions to move the rail further from the residences in Brookstead has not been considered by the proponent and is in violation of Section 6.7 of the TOR.	<p>The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018. The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.</p>	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further review and assessment by the construction contractor.</p> <p>The operational railway noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline - Operational Railway Noise and Vibration (March 2019). The assessment methodology for noise and vibration from railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. The railway noise assessment (Section 16.8 of Chapter 16: Noise and Vibration) included a detailed calculation and prediction of noise levels at individual sensitive receptors, including residences and non-residential receivers such as the buildings and property at the Brookstead and Yelarbon State Schools. Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. All noise mitigation will be in place prior to the commencement of Inland Rail operations. Mitigation measures were identified as potentially being required for two buildings at Brookstead State School. The proposed attenuation measures at Brookstead includes railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 11</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
153a	153a.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Border to Gowrie alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Section 6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 4 Section 5 Section 6 Section 10 Section 12.3 Section 17 Appendix G
153	153a.0003	Private - Turrill Workers	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix W: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.6 Section 16.7 Section 16.8 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Section 7 Appendix W: Noise and Vibration Assessment – Railway operations Section 4 Section 6 Section 7 Section 8 Section 9 Section 10 Section 17
153a	153a.0005	Private - Brookstead	Stakeholder Engagement		ARTC has failed to build trust, credibility and visibility due to the preferred communication process approach with key stakeholders being 'divide and conquer', resulting in negative social impacts on the community. ARTC has failed to build trust due to the informal communication style with residents, a lack of documentation of meetings held, a lack of follow up on action items and information provided as well as a deliberate power ration between ARTC representatives to landholders. The EIS provides a lot of documentation around 'the process' but little if any evidence on the effectiveness of engagement or how community concerns have been taken on board. ARTC has failed to build credibility with the community of the Condamine floodplain, due to significant delays in responding to community concerns (about the inaccuracies in the flood modelling, subsequent design shortcomings, potential impacts due to increased risk of severe flooding) as well as discounting historic flood records. ARTC has failed to build visibility in the community as the majority of affected landholders did not receive prior notice of the first meeting held in Millmerran, the Social Impact Survey failed to attract sufficient response for a valid representation of community views and impacts as well as a lack of follow through on an improved communication approach.	Community consultation process to be undertaken again with an independent facilitator to oversee the consultation process to ensure a fair process where community concerns are 'heard, acknowledged, considered' and that the community is truly empowered in influencing the best possible outcome in their region of influence, in line with the TOR for communication. Consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local business. The draft EIS should be rejected based on the incomplete nature of information needed to effectively comment on environmental and social impact (Chapter 23, Table 23.5). Detail of road and rail design will only be provided in the 'detailed design phase' subsequent to the EIS which does not provide an opportunity to adequately respond to the EIS.	<p>The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2.</p> <p>ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes.</p> <p>Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4.</p> <p>A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6.</p> <p>Responses to the concerns raised in this submission are outlined below.</p> <p>The first meeting in Millmerran:</p> <ul style="list-style-type: none"> ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. <p>Condamine floodplain:</p> <ul style="list-style-type: none"> Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. <p>Social Impact survey:</p> <ul style="list-style-type: none"> A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). <p>Future consultation:</p> <ul style="list-style-type: none"> As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/ occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks. 	Chapter 6: Stakeholder Engagement Section 6.2.4 Section 6.2.5 Section 6.3 Section 6.4 Section 6.6 Table 6.11 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2 Section 2.1 Section 4.1 Section 5.3 Section 5.5 Section 6 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
153a	153a.0006	Private - Brookstead	Social Impact Assessment	Modelling	The stakeholder engagement activity surveying landowners, community members, business owners and community organisations in the Toowoomba and Goondiwindi LGAs, had a very small participation of residents for the local community in Brookstead as it was poorly advertised and promoted by ARTC within the Brookstead region. Thus the statistical nature of the activity has limited validity and does not represent views of the community members who may be impacted by the Project.	The Survey should be repeated.	<p>This survey's purpose was to inform the initial scoping process for the Social Impact Assessment (SIA), to identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2).</p> <p>Revised draft EIS Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did not a statistically valid result in context with the SIA study area's population, but provided insights on local values and views to assist development of the SIA scope.</p> <p>Appendix X: Social Impact Assessment has been determined as meeting the Terms of Reference by the Coordinator-General. The survey is only one of a several stakeholder engagement processes which informed the scope of the Social Impact Assessment. As such, repetition is not necessary.</p> <p>ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru Projects are located. The first survey in the SIA study area was conducted in May 2022, and repeated in May 2023. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2).</p>	Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
153a	153a.0007	Private - Brookstead	Social Impact Assessment	Mitigation measures	<ul style="list-style-type: none"> Insufficient feasible alternative solutions with less social impacts on the community and day-to-day activities at the school have been discussed with the Brookstead community in relation to the impacts of the noise and vibration of the rail during both construction and operation. Insufficient detail is provided about how the social impacts to the community (impact on community values, anxiety and business disadvantage due to decreasing property values, construction noise or dust affects, distress in relation to changes to lifestyles, operational noise etc) will be minimised or mitigated and as such the draft EIS is incomplete according to TOR condition 11.140. 	Nil.	<p>As described in revised draft EIS Appendix X: Social Impact Assessment, environmental impacts that could affect social and mental wellbeing include noise, changes to visual amenity, changes to traffic networks, changes to water access, impacts on the use of properties affected by partial acquisition or changes to connectivity across the rail corridor.</p> <p>Design measures such as avoidance of town centres, avoidance of major farm infrastructure, the design of road-rail interfaces and provision for private crossings have sought to reduce impacts.</p> <p>Beyond this, mitigation strategies addressing environmental impacts such as noise, dust and emissions, impacts on groundwater bores and impacts on the traffic network are addressed in detail in relevant technical reports and Chapter 24: Draft Outline Environmental Management Plan. These measures aim to avoid environmental impacts and/or reduce potential impacts to levels which are considered acceptable under the relevant legislation and environmental guidelines.</p> <p>Strategies implemented by ARTC to date to address impacts on wellbeing include community information and engagement strategies, provision of funding for mental health support services, and provision of donations and sponsorships for Projects that improve community resilience and the amenity of local facilities.</p> <p>ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing Plan during the EIS display and post display period. Specific initiatives that will contribute to local community wellbeing have been identified in Appendix X: Social Impact Assessment, Section 8.5.6 for evaluation in consultation with key stakeholders.</p> <p>Appendix X: Social Impact Assessment also details how ARTC will engage with stakeholders to optimise local involvement in Project employment and Project supply, avoid impacts on housing access and mitigate impacts on community facilities, all of which are linked to support for community wellbeing.</p> <p>Regarding proposed solution:</p> <ol style="list-style-type: none"> The draft Social Impact Assessment (Appendix X: Social Impact Assessment) has been deemed to meet the TOR by the Coordinator-General. The timing for development of the Community Wellbeing Plan (during the detailed design stage) acknowledges that: <ul style="list-style-type: none"> Stakeholders need the opportunity to understand specific impacts before they can confirm priorities for implementation, (e.g. the type and location of community facility improvements, parks or streetscape upgrades) The Project's detailed design may change the location or nature of impacts requiring mitigation Councils have a range of priorities in terms of their responses to the Project and the EIS, of which specific community wellbeing initiatives are one, with timing needed to consider local priorities and the location and nature of specific impacts A process of deliberation with key stakeholders is required to develop the plan, including the respective and responsibilities of stakeholders for delivery of specific initiatives ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement ARTC acknowledges the uncertainty that Project development creates; however, design is an iterative process and landowners have been provided with information as it becomes available. Appendix X: Social Impact Assessment, Section 7.1) details the strategies that ARTC has implemented to support affected residents. As noted in Chapter 24: Draft Outline Environmental Management Plan. <p>ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners' occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relocation of impacted structures, as required (Appendix X: Social Impact Assessment, Section 8.6.1).</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 7.1</p> <p>Section 8.5.6</p> <p>Section 8.6.1</p>
156a	156a.0006	Private	Project alignment		See submission 156 for further details.	Use forestry route and send the rail line to Gladstone with Dalby as the hub.	<p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering construction and operating costs Multi-criteria analysis (MCA). <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The vast majority of freight carried on Inland Rail (on a NTK basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail Alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006 - 2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to the Border to Gowrie Project.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p>
158	158.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>
162	162.0004	Private - Turallin Workers	Noise and Vibration		Proposed location lacks services. Should generators be required to supply power, this would create noise.	<p>A non-resident workforce accommodation located within the Millmerran town perimeter due to the supporting reasons:</p> <ol style="list-style-type: none"> Sites which already exist (such as a construction camp prior to the Millmerran Power Station, the Millmerran Sportsman's club site or the Millmerran Showgrounds which is close to an all-weather airstrip) containing services available such as power, sewerage and water. Existing sites are within walking distance of the Millmerran town centre, access to facilities and local bus service. Opportunities for the workforce to participate in sporting activities and access to recreational facilities. Benefits to the town and wider community as there is potential for increase in economic activity. Showground site could make use of infrastructure install for the camp, once the camp was removed. Emergency service would be more readily available if required. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration.</p> <p>The revised draft EIS construction noise assessment has assessed the typical worst case 15-minute noise impacts (Section 6.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). Environmental noise impacts of any potential power generators used for non-resident workforce accommodation sites are not expected to exceed the construction noise impacts already assessed. In addition, the facility locations are suitably sized to enable generators to be located with a sufficient buffer distance away from accommodation and communal facilities to minimise potential noise impacts to the construction workforce and to surrounding sensitive receptors.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>As described in Section 5.6.4 of Chapter 5: Project Description of the revised draft EIS, ARTC has undertaken an initial assessment of workforce demand and has identified the potential need for two non-resident workforce accommodation facilities to accommodate the forecast construction workforce. Locations for these facilities that will meet the Project's safe commutable distances requirements are likely to be in proximity to the townships of Yelarbon, Inglewood, and Millmerran. The selection criteria for the location of the non-resident workforce accommodation facilities included:</p> <ul style="list-style-type: none"> The proximity of the accommodation to likely construction sites for fatigue-management purposes Land tenure and ownership of each site Available land area Proximity to supporting infrastructure and services Likelihood of noise, demand for essential services, and traffic impacts originating from the accommodation To avoid areas that are within the 1% AEP floodplains where possible Constraints such as significant vegetation communities, threatened species or heritage sites Road access Potential for planned future developments to impact on the non-resident workforce accommodation, or vice versa. <p>Based on these criteria, two properties have been identified as suitable for the establishment of non-resident workforce accommodation facilities. The landowners of these properties have each been consulted and are receptive to having the accommodation being located on their properties.</p> <p>While possible locations for three non-resident workforce accommodation facilities have been identified, not all locations may be required or nominated by the appointed Contractor. The location, capacity and layout of the accommodations are required will be confirmed and finalised during the detailed design stage of the Project. As mentioned in Section 3.4.5 and 3.4.38 of Chapter 3: Legislation and Project Approval Process, non-resident workforce accommodation facilities secondary approvals will be sought separately to the approvals sought through the revised draft EIS and will be obtained prior to accommodation establishment works commencing.</p>	<p>Chapter 3: Legislation and Project Approval Process</p> <p>Section 3.4.5</p> <p>Section 3.4.38</p> <p>Chapter 5: Project Description</p> <p>Section 5.6.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6.1</p>
163	163.0005	Private	Noise and Vibration	Directly impacted landowner	I am concerned about with vehicles creating noise with reverse beepers going on and of all hours of the day and night during construction and then the sounds of the trains once there up and running	Suggest that any vehicles working on the property fitted with reverse beepers must be able to turn them off if night work is done. So hopefully all these will be considered especially a different corridor would be much appreciated	<p>ARTC acknowledges that reversing beepers can be a source of annoyance, however they are required to be used for workplace safety purposes in accordance with Queensland workplace health and safety legislation. To minimise intrusive noise, vehicles will be fitted with a non-tonal reversing beacon which operate over a wide range of frequencies and produce a 'pshh-pshh' sound as opposed to the typical tonal 'beep-beep'. Most construction activities will take place during the daytime and the use of reversing beepers will be carefully managed in proximity to sensitive receivers.</p> <p>Mitigation measures for noise and vibration impacts, both for construction activities and railway operations are discussed in Section 16.10 of Chapter 16: Noise and Vibration.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p>
163	163a.0006	Private	General Project opinion - negative	Directly impacted landowner	Submission is identical to 163.	Nil.	ARTC acknowledges the submitter's concerns. Please refer to the responses to submission number 163.0001 to 163.0005 for how these concerns have been addressed.	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
164a	164a.0002	Private	Noise and Vibration	operational rail noise	In relation to our property Lot no 1501 Y56917 4 Bengalla St Yelarbon 4388. The increased noise from an estimated twenty trains per day travelling at high speed these trains being 1.8 km long with containers stacked two high will considerably affect our lifestyle destroying the reason why we chose to live in Yelarbon	The possibility of the trains travelling at reduced speed through our town would help in noise reduction. In relation to our house added insulation in the form of double glazing windows or another suitable product be considered	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 also discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction works of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor. The assessment of noise levels with conceptual noise barriers has identified that, depending on the final extent and the height of the noise barriers, the noise criteria may not be fully achieved at all receptors. At-property treatments could then be applied to sensitive receptors that do not achieve the noise criteria, this would be determined by ARTC on a case-by-case basis. All noise mitigation will be in place prior to commencement of Inland Rail operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Section 17.4
164a	164a.0003	Private	Traffic and Transport	operational road traffic noise	In relation to our property Lot no 1501 Y56917 4 Bengalla St Yelarbon 4388. Roadworks in relation to the inland rail Project. The opening of the closed Section of Bengalla St will result in increased traffic passing our property at our front door.	In relation to the opening of Bengalla St this will add to traffic passing close to our front door. If possible Bengalla St in its current form could service traffic both in and out of Yelarbon. I feel that the added noise created by these trains and the heavy traffic on the overpass will affect all Yelarbon residents and as for myself I am willing to negotiate for a suitable result.	ARTC has engaged with both Goondiwindi Regional Council and Yelarbon township community in the development of road layouts. It was concluded that opening and extending Bengalla street to connect to Yelarbon-Keeta road, via an existing road reserve, is fundamental to the scheme and provides greater connectivity and mobility for the township. Appendix AA: Traffic Impact Assessment, Section 3.7.2 discusses the reference design reviews and updates for the Yelarbon road rail interfaces and the proposed pedestrian crossing facilities.	Appendix AA: Traffic Impact Assessment Section 3.7.2
165	165.0004	Private	Noise and Vibration		Proposed blasting 1 km from our residence Damage to house foundations from nearby blasting ARTC has proposed an unacceptable noise level for our residence. Noise monitoring during construction and operational stage Disruption and noise created by operational maintenance crews, e.g. maintenance line in back yard ground borne noise/ vibrations and effects on individuals	1. House inspected pre and post Project to receive compensation if the house is affected by any of the above 2. Consulted personally in regard to acceptable noise levels 3. NO noise above 50 decibels 4. Noise monitoring during construction and operational stages. 5. ARTC must be conditioned to maintain acceptable noise levels. 6. Sound barriers and sound proofing measure to existing home 7. Compensation for the above should we be unable to reside in our home in the future due to rail impacts. 8. Rail Loop and maintenance loop to be relocated to the industrial area near Wellcamp airport. 9. ARTC to pay for relocation costs and rental costs to another residence during construction.	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and amenity during both construction works and operations stages. The revised draft EIS has been updated to undertake both construction (including blasting) and operational noise and vibration modelling in accordance with Department of Transport and Main Roads' (DTMR) Codes of Practice and Interim Guideline (2019). If blasting is deemed necessary for construction, appropriately trained and licenced shot firers will be engaged to undertake the blasting activities in accordance with QLD's regulatory requirements and the limits (for airblast overpressure and ground vibration) provided in DTMR's CoP Volume 2 (Chapter 16: Noise and Vibration, Section 16.6). ARTC will provide regular updates to the local community to ensure that residents are kept informed of when blasting activities will be carried out. In relation to blasting activities, the following measures to mitigate blasting impacts are included in the assessment: <ul style="list-style-type: none">Reducing the charge size by use of delays and reduced charge masses where possibleEnsuring adequate blast confinement to minimise the amount of overpressureAvoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative.Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptorsEstablishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors.Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring.Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys to assess the structural integrity of buildings along the alignment in accordance with the considerations outlined in Section 16.10 of Chapter 16: Noise and Vibration. Construction noise and/or vibration monitoring may be undertaken in response to noise or vibration complaints and to assess compliance of construction activities against adopted criteria. Following commencement of operations, ARTC will undertake noise and vibration monitoring to confirm that operational rail noise predictions were correct and that mitigation is working as intended. ARTC will also operate a complaints handling system during construction and operations to ensure stakeholder feedback and complaints are responded to appropriately. Noise and vibration mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration, Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. All operational noise mitigation measures will be in place prior to commencement of Inland Rail operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.6 Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
167	167.0001	Private	Noise and Vibration		Noise and vibration pollution	Sufficient funding to double glaze all windows and ducted air conditioning in our future house	The revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. The revised assessment is presented in Appendix: W Noise and Vibration Assessment - Railway operations. The proposed mitigation measures are further discussed in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. All operational noise mitigation measures will be in place prior to commencement of Inland Rail operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
168	168.0004	Private	Noise and Vibration	Directly impacted landowner	Residential noise pollution of engine and carriages including horn noise at level crossings.	Nil.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations states that in level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 17
168a	168a.0006	Private	Surface Water	Flood immunity	The submitter is concerned about the Section 137 to 143 km between the Condamine River and Yandilla. He highlights that a 1.8 km long rail bridge foundation across Hall Road (138 km to 142 km) and 46 group of culverts at almost 3 km long in the Section 139.37 km to 142.58 km can cause changes in peak water levels, direction and velocity of flood waters, changes in duration of inundation, flood flow distribution, block water flow as a result of debris accumulation and intensify soil erosion. The submitter is concerned that in this scenario plenty of debris and weeds run into our land Lot 1 DY492, Lot 2 DY492 and Lot 38 DY853 comparing to existing hydrologic history. The situation will become worst if heavy rainfall occurs. Additionally, gravels used in rail lines will flow into the surrounding paddocks in an event of flooding, damaging agricultural machinery and creating other operational issues. He also feels that existing design on number of culverts may be far away from enough to handle flood water break out at Condamine and Grass Tree Creek.	Install screens on culverts to filter debris and weeds. Culverts clean up management and execution plan should be built, but the submitter doubts its efficiency during flooding. Possibly Rail Bridge will be the best option all the way across Condamine Flood Plain. The submitter also wants an opportunity to comment on the finalised report of the international flood expert panel, Senate Inquiry and other drafts to the EIS.	Bridge and culvert numbers and openings have been designed to pass a 1% AEP flood, in line with Australian industry guidelines and best practise. With respect to ongoing maintenance of culverts, ARTC as the operator of Inland Rail, will implement an Inspection and Maintenance program in accordance with ARTC's Civil Technical Maintenance Plan (extranet.artc.com.au/docs/eng/track-civil/procedures/track-civil/ETE-00-03.pdf), Flooding Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/Section10.pdf) and ETG-10-01 General Appendix to ARTC Track & Civil Code of Practice (extranet.artc.com.au/docs/eng/track-civil/procedures/flooding/ETG-10-01.pdf) to ensure that culverts are free flowing and clear of excess vegetation growth and/or blockages. ETG-10-01 (Flooding) considers that blockage or partial blockage of waterway > 20% loss of area due to debris, rubbish or siltation is a defect. The required response time is within 28 days to repair/restore. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as detailed in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Appendix T1: Hydrology and Flooding Technical Report - Volume 1.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4
168a	168a.0007	Private	Groundwater	Directly impacted landowner	The submitter talks about the Section between 137 to 143 km between the Condamine River and Pampas. The submitter is concerned about the drilling impacts of foundation structures intercepting the shallow aquifers supplying water to Millmerran, Pittsworth, Brookstead & Southbrook townships and their surrounds, various localities including Pampas and surrounding areas, and on agricultural irrigation, stock water and domestic use.	Nil.	The drilling of foundation pilings associated with bridges is unlikely to cause any permanent impacts to groundwater other than temporary impacts during the construction works stage. Pilings will be of a sufficient spacing to prevent permanent impact to groundwater flow and will be constructed using cured in place (CIP) technique in which concrete slurry is pumped through a hollow stem auger concurrently as soil/ rock is brought to the surface (Chapter 15: Groundwater, Section 15.6.3). Only minor volumes of groundwater are anticipated to be brought to surface using the CIP method (e.g. 5 to 10 litres per 20 m deep auger hole). No active dewatering is anticipated. The spacing of the pilings is such that impediment of groundwater flow is unlikely and not expected. Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 to 15.4.4). Site-based groundwater monitoring events are on hold until the detailed design stage of the Project. Site-based monitoring will resume, in accordance with the Monitoring and Sampling Manual 2009 (DES, 2009) over sufficient time to achieve a baseline dataset. The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of possible water quality and level changes resulting from aspects of the Project (see the proposed groundwater management and monitoring program (GMMP) in the revised draft EIS, Chapter 15: Groundwater, Section 15.7.3 for a detailed approach to monitoring for impacts during construction).	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.6.3 Section 15.7.3
168a	168a.0008	Private	Noise and Vibration	Directly impacted landowner	Residential noise pollution of engine and carriages including horn noise at level crossings.	Nil.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations states that in level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3). Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
168a	168a.0009	Private	Flooding	Directly impacted landowner	Change in flood flow distribution, velocity of flood water and intensify soil erosion result in decrease of our cropping production and significant devaluation of our properties.	Nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC has undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>In order to support this, additional mapping has been generated by ARTC to provide further information and justification to the Expert Flood Panel. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	<p>Chapter 14: Flooding and Geomorphology</p> <p>Table 14-4</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 2</p> <p>Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
168a	168a.0010	Private	Traffic and Transport	Directly impacted landowner	The interference to farming operations due to increased traffic frequency and deteriorating condition of Hall Road during the construction phase of the Project.	Nil.	<p>ARTC acknowledges this issue, which will continue to be addressed as the design and construction planning progresses. Consultation with landholders will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/ properties. However, during the property acquisition process, ARTC will seek to secure agreements with affected landholders, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties, as described in Chapter 8: Land Use and Tenure, Section 8.5.1 and 8.6.2.</p> <p>The agreements may include:</p> <ul style="list-style-type: none"> measures to minimise property impacts, including on agricultural operations specific requirements to ensure that operations, including the movement of livestock and farm machinery are able to be maintained as efficiently as possible measures to manage severance impacts, where practicable, including appropriate access solutions and amalgamation opportunities required adjustments to affected structures. <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 8: Land Use and Tenure</p> <p>Section 8.5.1</p> <p>Section 8.6.2</p>
169	169.0001	Private	Noise and Vibration		Existing noise to proposed inland rail. Noise levels construction and operation.	To complete noise treatments at homes prior to construction commencing.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property and lifestyle during both construction works and operations stages. The revised draft EIS has been updated to undertake both construction and operational noise and vibrating modelling in accordance with DTMR's Codes of Practice and Interim Guideline (2019).</p> <p>Noise and vibration mitigation measures are recommended in Chapter 16: Noise and Vibration (Section 16.10), Appendix V: Noise and Vibration Assessment - Construction and Road Traffic (Section 7) and Appendix W: Noise and Vibration Assessment - Railway Operations (Section 17). Reasonable and practicable measures will be investigated on a "case by case" basis. Mitigation measures may include the construction of noise barriers where there are a large number of properties potentially impacted or "at-property" treatments for isolated properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>ARTC will ensure required mitigation is in place at the start of operations. The at-property treatments shall be considered as soon as possible once the assessment of the final design is complete to support the mitigation of construction impacts and minimise the risk of not having mitigation in place prior to the commencement of operations. The determination of eligibility of treatments, and the specific treatment provided, is also likely include the measurement of noise levels from the operation of the Project. Particularly, where the modelled (predicted) noise levels are within a relatively small margin of compliance.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
169	169.0003	Private	Noise and Vibration		House movements and vibration impacts	Complete a pre-construction inspection of each impacted house which is to be agreed to by contractor as a baseline condition of home.	<p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the detailed design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10, Chapter 16: Noise and Vibration). Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys prior to assess the structural integrity of buildings along the alignment in accordance with the assessment considerations outlined in Section 16.10 within Chapter 16: Noise and Vibration.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p>
171	171.0003	Community Group	Noise and Vibration		Over 900 local Pittsworth residents signed a petition to the Qld Government about potential noise impact of the proposed route, which is less than 200 m from Pittsworth town and would cause considerable impact to local residents if the proposed route was maintained. ARTC has ignored community feedback and concern. ARTC has refused to provide any detail about noise abatement measures that will be taken (if any) to mitigate the noise which will likely be in excess of acceptable levels. Of particular concern to residents is that if they live outside the 200-m exclusion zone, you are not eligible to compensation of any kind and the ARTC has no obligation to minimise sound disturbance.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with the Department of Transport and Main Roads Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes appropriate noise level criteria for residential activities that have been applied to evaluate potential impacts and define where noise mitigation may be required. The revised assessment is included in Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
171a	171a.0008	Private	Project alignment		The proper study of a viable alternate route needs to be included. One that has less impact on environment and community.	Use an independent engineering firm to look at the viable options.	<p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie. The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment as the preferred concept alignment for the Border to Gowrie Project. The Corridor Options Report, the preparation of which was overseen by a Project Reference Group appointed by the Australian Government and chaired by Mr Bruce Wilson AM, was made publicly available by the Australian Government on 21 September 2017. The estimate of quantities used in cost estimates contained in the report was subject to an independent review by RPS in August 2017, with no shortcomings identified.</p> <p>The base case via Wellcamp Charlton alignment formed the centreline of a two-kilometre-wide study area to be progressed through ARTC's phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. Chapter 2: Project Rationale of the draft EIS describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> Environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) Community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) Approvals and stakeholder engagement: 12.5 per cent Technical viability: 17 per cent Safety: 16.5 per cent Constructability: 12.5 per cent Operations: 16.5 per cent. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix E: Consultation Report</p>
171b	171b.0009	Private	Traffic and Transport	Aquatic fauna	Road closure impacts are not assessed adequately.	Survey the local residents on these proposed road closures.	<p>Further consultation with DTMR, local authorities, impacted stakeholders and local residents affected by proposed closures will be undertaken in the detailed design stage once the alignment, associated road closures and crossings have been confirmed and a construction contractor is appointed. These consultations and resulting mitigation measures will be discussed and agreed with the road controlling authorities.</p> <p>Appendix AA: Traffic Impact Assessment, Section 5.9 discusses the road diversion assessment for the following diversions:</p> <ul style="list-style-type: none"> Athol School Road, Athol Biddeston Southbrook Road, Southbrook Lochaber Road, Pittsworth Oakey Pittsworth Road, Pittsworth Tip Road, Pittsworth Ware Street, Brookstead Fysh Road, Pampas. <p>At each of these diversion locations, an assessment has been undertaken to summarise the following:</p> <ul style="list-style-type: none"> Existing situation, including the road network and active and public transport provisions Required site distance length Traffic information and rerouting assumptions Capacity (SIDRA) and turn warrants assessment without and with Project Recommendations for mitigation measures. <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the detailed design and construction works stages to ensure that safety concerns and issues are addressed.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.9</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
171c	171c.0009	Private	Noise and Vibration		Specific noise mitigation measure need to be provided.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments. The revised assessment is included in Appendix: W Noise and Vibration Assessment - Railway Operations. Mitigation measures are also discussed in Section 16.10 of Chapter 16: Noise and Vibration Section 17 of Appendix W.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise community disruption in the construction works stage and through to operations. All operational noise mitigation measures will be in place prior to commencement of Inland Rail operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix: W Noise and Vibration Assessment - Railway operations Section 10 Section 11 Section 17</p>
172a	172a.0001	State Agency	Surface Water		Water requirements from the Macintyre River	the proponent will need to address Queensland Gov water requirements from the Macintyre River north by liaising with DRDMW.	<p>ARTC has continued to consult with DRDMW regarding the sourcing of construction water since publication of the draft EIS.</p> <p>Discussion regarding construction water in Section 5.6.24 of Chapter 5: Project Description has been revised substantially since release of the draft EIS. Section 5.6.24 now states ARTC recognises that water sourcing and availability is critical to supporting the construction of the Project. Sources of construction water will be finalised as the construction approach is refined during the detailed design. Through this process, refined water demand planning will be undertaken, including detailed contingency options, if protracted dry seasonal conditions prevail and water supply options become unavailable.</p> <p>ARTC has consulted with each of the potential water suppliers. Details of consultation are provided in Appendix E: Consultation Report.</p> <p>Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements Report.</p>	<p>Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements Report Appendix E: Consultation Report</p>
172a	172a.0002	State Agency	Surface Water		Infrastructure within the Macintyre River	the proponent should confirm no infrastructure will be placed within the Macintyre River or within mapped or unmapped features on the DRDMW watercourse identification map.	<p>The Project commences at the NSW/QLD border, which is the median point of the Macintyre River. Inland Rail will cross the Macintyre River on a viaduct, with abutments and piers located within the bankfull width of the river. 535 m of this viaduct structure is situated within Queensland and will be subject to approval through the EIS. This detail is provided in Section 5.4.6 of Chapter 5: Project Description.</p>	<p>Chapter 5: Project Description Section 5.4.6</p>
172a	172a.0003	State Agency	Flora and Fauna		if excavation of material, placement of fill or destruction of vegetation is proposed within a feature mapped as a watercourse on the DRDMW watercourse identification map, a riverine protection permit will be required if the works cannot be carried out in accordance with the riverine protection permit exemption requirements.	Destruction of vegetation in a watercourse	<p>The detailed design for riparian vegetation, aquatic fauna and habitats Section of Chapter 11: Flora and Fauna and Appendix L: Terrestrial and Aquatic Ecology Technical Report, outlines Project impact mitigation measures. Impacts to waterways, riparian vegetation and in-stream flora and habitats are sought to be minimised during the design stage. Where the Project is unable to comply with the exemption requirement, a Riverine Protection Permit will be sought for works within a watercourse.</p>	<p>Chapter 11: Flora and Fauna Section 11.6 Appendix L: Terrestrial and Aquatic Ecology Technical Report</p>
172a	172a.0004	State Agency	Surface Water		Overland flow drainage feature	there is an overland flow drainage feature on lot 37 on MH878 that is immediately downstream of an authorised overland flow storage that bywashes into this feature. A bank on this feature that captures (takes) overland flow cannot be permitted under the Border Rivers and Moonie Water Plan area. A bank across this feature would also impact on the taking of overland flow by users downstream as well as flows into the Macintyre River.	<p>The revised reference design includes culverts under the proposed rail embankment to maintain existing flow paths. At 37MH878 runoff generated from catchments bisected by the proposed Inland Rail embankment allows for four culvert locations to maintain cross drainage flows, namely C34.64 (NS2B) (consisting of 9 x 3.0 m x 1.2 m reinforced concrete box culverts), C34.70 (NS2B) (consisting of 19 x 3.0 m x 1.5 m reinforced concrete box culverts), C34.75 (NS2B) (consisting of 10 x 3.0 m x 1.2 m reinforced concrete box culverts) and C34.79 (NS2B) (consisting of 7 x 3.0 m x 1.2 m reinforced concrete box culverts). Further assessment and design development will continue through the design process into detailed design to maintain existing flow paths and cross drainage.</p>	<p>Appendix B1: Design Drawings - 2-0001-310-ELE-10-SK-4102 - Border to Gowrie Revised draft EIS General Arrangement Sheet 2.</p>
172a	172a.0005	State Agency	Surface Water		Impact on irrigation infrastructure and pumping infrastructure	the proponent should describe/ mitigate potential impacts on irrigation infrastructure and privately owned pumping infrastructure on the QLD side of the border.	<p>Chapter 8: Land Use & Tenure of the revised draft EIS acknowledges that private services and utilities may be impacted by the Project and that resolution to the impact will be determined on an individual case-by-case basis in consultation with landowners during detailed design. The detailed design will be developed to ensure that affected landowners retain access to existing natural resources, including water (Chapter 8: Land Use and Tenure, Section 8.6).</p> <p>If, following consultation, relocation and/or protection of water utilities is determined to be the preferred solution, the works will be designed and constructed in accordance with the following outlined in Table 8-51 of Chapter 8: Land Use and Tenure:</p> <ul style="list-style-type: none"> Water Supply Code of Australia (Water Services Association of Australia, 2011) AS/ NZS 2566 Buried flexible pipeline: Structural design (Standards Australia, 1998). <p>Alternatively, if impacts to water utilities cannot reasonably be avoided or mitigated through design, appropriate compensation arrangements will be discussed and agreed with the affected landowner.</p>	<p>Chapter 8: Land Use & Tenure Section 8.6 Table 8-51</p>
172a	172a.0006	State Agency	Surface Water		Water harvesting	the proponent should describe/ mitigate potential impacts on water harvesting caused by proposed infrastructure on the Macintyre River floodplain.	<p>The flooding and hydrology study presented in Appendix T1 and T2: Hydrology and Flooding Technical Report - Volume 1 and 2 of the revised draft EIS has assessed impacts to existing overland flow as a consequence of the Project. Whilst change to hydraulic regimes may occur (due to new infrastructure) at 1% AEP conditions, hydrological modelling indicates that no significant changes are expected to base-flow and low-flow conditions (refer Appendix T1 and T2: Hydrology and Flooding Technical Report Volume 1 and 2) and that access to surface water resources will not be affected.</p> <p>As stated in Table 13-16 of Chapter 13: Surface Water, the detailed design will be developed to ensure that, where possible, private water storages are avoided and that affected landowners retain access to existing natural resources. If impacts to access to existing natural resources cannot be avoided through design, appropriate compensation arrangements will be discussed and agreed with the relevant impacted landowner. Where the Project will result in disturbance to private surface water storages (e.g. dams), ARTC will consult with the owners of relevant, legal storage structures prior to works commencing to agree an approach to decommissioning or relocation of the structure. This may also include the usage or relocation of stored water and compensation (if applicable).</p>	<p>Chapter 13: Surface Water Table 13-16 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Appendix T2: Hydrology and Flooding Technical Report - Volume 2</p>
172a	172a.0007	State Agency	General Project opinion - positive		Consultation with the proponent	DRDMW seeks ongoing consultation with ARTC with regard to water requirements for NS2B.	<p>As outlined in the revised draft EIS, Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report, ARTC recognise DRDMW as a key stakeholder of the Project.</p> <p>Additional consultation with this stakeholder has been undertaken during the development of the rEIS in 2022 and ARTC is committed to ongoing consultation with DRDMW as the Project progresses through the detailed design stage.</p>	<p>Chapter 6: Stakeholder Engagement Appendix E: Consultation Report</p>
173	173.0004	State Agency	Noise and Vibration		Visual amenity and acoustic treatments for schools	Dept Education to be a stakeholder in the design process for visual amenity and acoustic treatments proposed in vicinity of schools	<p>Brookstead and Yelarbon State Schools are located within 200 m of the Project footprint and the Southbrook Central State School is located 900 m from the alignment. These schools may be impacted by construction and/or operational noise and construction activities. Consultation with these schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2. Queensland Government engagement. The agreed approach is to work with the schools and DoE during detailed design to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. The noise and vibration mitigation measures in the revised draft EIS are discussed in Section 16.10 of Chapter 16: Noise and Vibration.</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. 	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 4.2</p>
176	176.0001	Private	Noise and Vibration		The Project extends along the entire northern boundary of Pittsworth and will severely impacts on residents during construction and operation resulting in daytime disruptions and sleep disturbance. The proportion of retirees on the north side is significant. Their lifestyle and wellbeing will be totally disrupted. Families with young children living on the northern side of town will also be impacted. ARTC has failed to engage with residents and inform them of noise and vibration impacts.	<ol style="list-style-type: none"> EIS does not comply with the TOR EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design. True noise and vibration impact on Pittsworth cannot be determined until detailed design. Review alignment - the route is unsuitable. 	<p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>To provide an illustration of how noise walls could look like, concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Falton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2.22, has been updated to include an artist's impression showing the potential for mitigation measures in this location, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4 Appendix K: Landscape and Visual Impact Assessment Section 8.2.22 Section 11.2 Table 95 Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
176	176.0003	Private	Noise and Vibration	Blasting	Residents would be unaware of the impact of noise and vibration they will experience from blasting especially from the Broxburn site. The excavation site to the north of Pittsworth will also result in considerable noise over a sustained period. Vibration and noise from pile driving will also affect the entire town.	<ol style="list-style-type: none"> EIS does not comply with the TOR EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design. True noise and vibration impact on Pittsworth cannot be determined until detailed design. Review alignment - the route is unsuitable. 	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact property, lifestyle and amenity during the construction works and operations stages. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community (refer to Section 5.6, Appendix E: Consultation Report).</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>If blasting is deemed necessary for construction, appropriately trained and licenced shot firers will be engaged to undertake the blasting activities in accordance with State regulatory requirements and the limits (for airblast over-pressure and ground vibration) provided in DTMR's CoP Volume 2 (see Chapter 16: Noise and Vibration, Section 16.6). ARTC will provide regular updates to the local community to ensure that residents are kept informed of when blasting activities will be carried out. In relation to blasting activities, the following measures to mitigate blasting impacts are included in the assessment:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses where possible Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>Prior to construction, ARTC will undertake building condition or dilapidation surveys to assess the structural integrity of buildings along the alignment in accordance with the considerations outlined in Section 16.10, Chapter 16: Noise and Vibration.</p> <p>In addition, the following measures have been recommended to mitigate the noise and vibration impacts of piling:</p> <ul style="list-style-type: none"> When piling, avoiding dynamic compaction using large tamping weights near sensitive and critical receptors where possible Reducing energy per blow when piling (consider first whether this may result in prolonged exposure with no realised reduction in community disturbance) When piling, acoustic damping will be provided to sheet steel piles to reduce vibration and resonance When piling, resilient pads will be used between pile and hammerhead. Care will be taken when selecting a resilient pad as energy is transferred to the pad in the form of heat Construction progress and upcoming activities will be communicated to local residents and stakeholders, particularly when noisy or vibration generating activities are planned, such as vibratory compaction and piling. <p>The draft revised EIS has been updated to address vibration potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (refer to Section 17 Appendix W: Noise and Vibration Assessment – Railway operations). Specific measures for Pittsworth are detailed in Section 17.4. All operational noise mitigation will be in place prior to commencement of operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise community disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Sections 16.5</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p>
176	176.0005	Private	Noise and Vibration		Is the vibration of a train of this length and tonnage unquantifiable?	<ol style="list-style-type: none"> EIS does not comply with the TOR EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design. True noise and vibration impact on Pittsworth cannot be determined until detailed design. Review alignment - the route is unsuitable. 	<p>Ground borne vibration is assessed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13. The assessment identified that an estimated off-set distance of 12 m from the outer rail would be required to achieve ground-borne vibration criteria for residential buildings. Section 13 of Appendix W: Noise and Vibration Assessment - Railway Operations further discusses that a review of the Project alignment identified that all sensitive receptors, excluding those expected to be acquired by the Project, would be outside of the 12 m off-set distance from the outer rail of the Inland Rail track. On this basis, the railway operations on the Project rail tracks would achieve the ground-borne vibration assessment criteria at all sensitive receptors.</p> <p>Ground vibration impacts have also been assessed and a review of identified sites of potential heritage significance has been undertaken. Peak particle velocity (PPV) levels are predicted to comply with applicable heritage vibration criteria at distances greater than 15 m from the nearest rail. The review has not identified any potential vibration impacts to heritage sites from railway induced ground-borne vibration.</p> <p>Further assessment of impact is recommended during the detailed design stage to verify the screening assessment outcomes.</p>	<p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 13</p>
177	177.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions. Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	<p>Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.</p>	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area (Chapter 16: Noise and Vibration, Section 16.6 and 16.9).</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in of Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
177	177.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	<p>Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.</p>	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP04) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p>
180	180.0001	Private	Noise and Vibration		Dispute the numbers given in Figure 2.14 of Chapter 2 in the EIS. These numbers on affected residents only include those with property within the rail corridor and therefore do not include the population of Pittsworth (3296 as of 2016 census), who would be affected by noise and disruption of rail construction and operation.	<p>Seeking a night-time curfew be placed on trains passing through Pampas, Brookstead and Pittsworth. Community consultation process needs to be undertaken again. We ask that an independent facilitator oversees the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered* and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication.</p>	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The DTMR Interim Guideline only requires an impact area of up to 150 metres from the railway.</p> <p>As noted in Section 2.8 of the Chapter 2: Project Rationale in the revised draft EIS, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4.22, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils.</p> <p>Regarding proposed solution, it is not feasible to place a night-time curfew on trains travelling through the towns of Pampas, Brookstead and Pittsworth, as one of the remits of Inland Rail is to move freight between Melbourne and Brisbane within 24 hours. However, ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
180a	180a.0006	Private	Flooding	Blockage of drainage structures	There will be lives lost if the Inland Rail is built across the Condamine floodplain near Pampas. The rail design includes an embankment 1.095 m higher than current bank heights. There is also insufficient bridging and culverts to allow free-flowing water under this new embankment height. Culverts and bridges will also cause debris to build up and the flow of water won't be able to pass and then recede.	<p>Nil.</p>	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p>	<p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 1.4</p> <p>Section 2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
180a	180a.0007	Private	Stakeholder Engagement		Dispute that ARTC has undertaken the consultation process described in Appendix C Figure 2.1, where they claimed they would "inform, consult, involve, collaborate, empower" affected landholders. When ARTC came to visit the submitter's property at Fysh Road, Pampas, ARTC said that the flood could not have been that deep and they accused us of painting a flood line on the shed. We feel that ARTC has not treated local community members with respect and believed or used the information on flood heights presented by local landholders. These interactions clearly indicated that ARTC has failed to build trust and credibility in stakeholder engagement, and have dismissed local knowledge and records of flood heights, and treated affected landholders with contempt.	The community consultation process needs to be undertaken again. We request that an independent facilitator oversees the consultation process to ensure a fair process where community concerns are "heard, acknowledged, considered" and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Appendix C, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses, particularly with reference to the flood model and likely impacts on future flood events.	The consultation approach for the Project is guided by the International Association of Public Participation (IAP2) principles. These principles underpin ARTC's core values for engagement, which define the expectations of the community consultation process, in accordance with different levels on the public participation spectrum. The level of stakeholder participation for the Project depends on the stakeholder group and technical constraints. Further information on the consultation approach is outlined in Appendix E: Consultation Report, Section 2. ARTC expects a high standard of professional conduct and ethics in our business. ARTC's process for recording and responding to stakeholder concerns is documented in Chapter 6: Stakeholder Engagement, Section 6. All stakeholder interactions are recorded, categorised, and responded to within set timeframes outlined in Section 6.2.4. Issues and themes are analysed internally by the stakeholder team to continually improve ARTC's consultation and communication processes. Since the draft EIS and this submission, ARTC has undertaken a body of work to inform the revised draft EIS, including additional consultation, assessments and technical investigations. This process was supported by a comprehensive stakeholder engagement program, which is detailed further in Appendix E: Consultation Report, Section 4. A number of consultation methods have been used in the development of the revised draft EIS, allowing stakeholders to provide feedback to the reference design. Where appropriate, design changes and/or mitigation measures have been made in response to stakeholder feedback. This is documented in the revised draft EIS in Chapter 6: Stakeholder Engagement, Section 6.6. Responses to the concerns raised in this submission are outlined below. The first meeting in Millmerran: ARTC notes that this submission refers to the first community engagement event in Millmerran, held in June 2016. At this time, the community engagement associated with the corridor selection process and development of the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016) and was managed by the Federal Department of Infrastructure and Regional Development. ARTC's engagement program is designed to provide multiple opportunities for targeted stakeholders and the wider community to participate in the Project. ARTC has undertaken significant work to engage with all stakeholders, particularly those directly impacted by the Project. It should be noted that, in some instances, stakeholders have declined to engage directly with ARTC despite numerous attempts. A combination of digital and traditional engagement methods was used for the greatest reach. Digital tools include website, interactive map, social media, maps, videos, a Project flythrough, graphics, and e-newsletters. Further details and examples are listed in Section 6.4 and Appendix E: Consultation Report, Section 6. Traditional tools included information sessions, letterbox drops, fact sheets, maps, graphics, newsletters, meetings (group and individual), workshops, forums, phone calls, letters, newspaper advertising, television advertising, attending community events and shows. Condamine floodplain: Significant additional hydrology assessments, modelling and consultation has been undertaken to further inform the Condamine floodplain crossing since the draft EIS. In June 2020, the Australian and Queensland governments established the Independent International Panel of Experts for Flood Studies to provide assurance that the flood models and reference design meet national guidelines and industry best practice. Following the release of the Independent International Panel of Experts for Flood Studies of Inland Rail in Queensland Report in July 2021 (draft) and October 2022 (final), Inland Rail carried out additional consultation and technical investigations to refine the flood model. Community sessions and one-on-one landowner meetings allowed ARTC to collect data and local knowledge about historical flooding along the alignment in 2021 and 2022. ARTC has been working with global engineering consultancies, local councils, landowners and government agencies to ensure the Project design is safe and reliable and incorporates knowledge from historical flood events. ARTC will continue to seek feedback from landowners and councils along the alignment during detailed design. The outcomes of hydrology and flood consultation are outlined in Appendix E: Consultation Report, Section 5.3. Social Impact survey: A range of targeted engagement tools were used to inform the Social Impact Assessment, including the social impact survey. This survey's purpose was to inform the SIA scoping process and identify community values to be considered in the assessment. The survey was not designed to define the breadth or significance of social impacts, but rather to identify initial concerns, prior to implementation of the range of engagement strategies that informed the assessment of impacts and development of mitigations (as detailed in Appendix X: Social Impact Assessment, Section 6.2). Appendix X: Social Impact Assessment, Section 4.3 notes that the survey did produce not a statistically valid result for the SIA study area's population but provided insights on local values and views to assist development of the SIA scope. ARTC has sponsored an independent survey of community wellbeing, quality of life and community values and priorities for enhanced liveability in the Project region and adjacent LGAs to the north where Inland Rail's Gowrie to Helidon, Helidon to Calvert, and Calvert to Kagaru Projects are located. The first Living in Place survey in the Project region was conducted in May 2022. Surveys will be conducted annually to enable monitoring of key values (Appendix X: Social Impact Assessment, Section 6.2.2). Future consultation: As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC will work with individual landowners to accommodate the continuation of current property management activities and access across properties, where possible, in the detailed design and construction works methodology. Individual property treatments will be developed in consultation with landowners/occupants, with respect to the management of construction on, or immediately adjacent to, private properties. The treatments will detail any required adjustments to fencing, access, farm infrastructure or relation of impacted structures, as required. Chapter 24: Draft Outline Environmental Management Plan also notes that an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.	Chapter 6: Stakeholder Engagement Section 6 Section 6.2.4 Section 6.2.5 Section 6.4 Section 6.5 Section 6.6 Chapter 24: Draft Outline Environmental Management Plan Appendix E: Consultation Report Section 2.1 Section 4.1 Section 5.3 Appendix X: Social Impact Assessment Section 4.3 Section 6.2 Section 6.2.2
180a	180a.0008	Private	Project alignment		Do not believe that the cost comparisons between the route have been made on accurate numbers. The like for like costings did not include the additional bridging and construction costs to cross the flood plain, as ARTC has only become aware of construction difficulties on black soil foundations, and the real width and volume of water flowing across the floodplain between Millmerran and Brookstead in recent years. So these numbers in Figure 2.15 of Chapter 2 of the EIS are misleading to make the Base case route look better, and they were formed in 2016 before the flood modelling had been undertaken and before the flood plain crossing had been designed. The costs for the rail design have blown out substantially since then, as the enormity and reality of crossing the floodplain has become apparent.	The costings of the route comparisons in Figure 2.15 in Chapter 2 of the EIS must be undertaken on realistic figures around the current flood plain design to allow for affair route comparison. The detail of the flood model by the panel of experts and the likely impacts and increased flood risk and impact due to increased embankment heights with obstructed free flow across the flood plain are not yet available, so the EIS hydrology should be rejected until we have accurate information on hydrology.	ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 meters (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website. The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. Consultation with landholders will be ongoing during detailed design to identify feasible and reasonable measures and opportunities to minimise impacts on their operations/properties.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
181	181.0001	Private	Noise and Vibration	Aquatic Fauna	Dispute the numbers given in Figure 2.14 of Chapter 2 in the EIS. These numbers on affected residents only include those with property within the rail corridor and therefore do not include the population of Pittsworth (3296 as of 2016 census), who would be affected by noise and disruption of rail construction and operation.	Seeking a night-time curfew be placed on trains passing through Pampas, Brookstead and Pittsworth. Community consultation process needs to be undertaken again. We ask that an independent facilitator oversees the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication.	ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.9.3 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils. Regarding proposed solution, it is not feasible to place a night-time curfew on trains travelling through the towns of Pampas, Brookstead and Pittsworth, as one of the remits of Inland Rail is to move freight between Melbourne and Brisbane within 24 hours. However, ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 10: Landscape and Visual Impact Assessment Section 10.5 Section 10.5.4.22 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95 Appendix W: Noise and Vibration Assessment - Railway Operations Section 10 Section 17
181a	181a.0006	Private	Flooding	Blockage of drainage structures	There will be lives lost if the Inland Rail is built across the Condamine floodplain near Pampas. The rail design includes an embankment 1.095 m higher than current bank heights. There is also insufficient bridging and culverts to allow free-flowing water under this new embankment height. Culverts and bridges will also cause debris to build up and the flow of water won't be able to pass and then recede.	The community consultation process needs to be undertaken again. We request that an independent facilitator oversees the consultation process to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region of influence, according to the terms of reference for communication (Appendix C, Figure 2.1). The consultation in the Brookstead and Pampas region needs to revisit decisions around rail and bridge design, road access changes and the impact on residences and local businesses, particularly with reference to the flood model and likely impacts on future flood events.	The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
181a	181a.0007	Private	Stakeholder Engagement		Dispute that ARTC has undertaken the consultation process described in Appendix C Figure 2.1, where they claimed they would 'inform, consult, involve, collaborate, empower' affected landholders. When ARTC came to visit the submitter's property at Fysh Road, Pampas, ARTC said that the flood could not have been that deep and they accused us of painting a flood line on the shed. We feel that ARTC has not treated local community members with respect and believed or used the information on flood heights presented by local landholders. These interactions clearly indicated that ARTC has failed to build trust and credibility in stakeholder engagement, and have dismissed local knowledge and records of flood heights, and treated affected landholders with contempt.	Nil.	<p>ARTC empathises with the landowner and the distress that this incident may have caused. ARTC employees operate under a Code of Conduct, which requires them to be respectful and courteous at all times. Complaints regarding an ARTC employee should be made directly and would be taken seriously by the Company. Complaint grievance procedure is clearly outlined on the Inland Rail website.</p> <p>Chapter 6: Stakeholder Engagement, Section 6.6.4 and Appendix E: Consultation Report, Section 5.3 detail the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the revised reference design. In addition, 50 historic flood markers on private property were surveyed.</p> <p>ARTC notes that it does not have a record of having visited the submitter's property in Fysh Road, Pampas, and is unable to confirm if submitter currently or previously owned a property in Fysh Road, Pampas.</p> <p>Community engagement has influenced the development of the revised reference design, and this will be presented in the revised draft EIS. Landowners with the highest level of exceedances have been offered one-on-one meetings to discuss mitigation measures specific to their property. The revised reference design includes updates to the Condamine floodplain crossing design, which incorporates all community feedback collected during consultation. Key changes include:</p> <ul style="list-style-type: none"> Extending the proposed bridge over the North Branch by approximately 250 m north Moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge Increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. 	<p>Chapter 6: Stakeholder Engagement</p> <p>Section 6.6.4</p> <p>Appendix E: Consultation Report</p> <p>Section 5.4</p>
181a	181a.0008	Private	Project alignment		Do not believe that the cost comparisons between the route have been made on accurate numbers. The like-for-like costings did not include the additional bridging and construction costs to cross the flood plain, as ARTC has only become aware of construction difficulties on black soil foundations, and the real width and volume of water flowing across the floodplain between Millmerran and Brookstead in recent years. So these numbers in Figure 2.15 of Chapter 2 of the EIS are misleading to make the Base case route look better, and they were formed in 2016 before the flood modelling had been undertaken and before the flood plain crossing had been designed. The costs for the rail design have blown out substantially since then, as the enormity and reality of crossing the floodplain has become apparent.	The costings of the route comparisons in Figure 2.15 in Chapter 2 of the EIS must be undertaken on realistic figures around the current flood plain design to allow for affair route comparison. The detail of the flood model by the panel of experts and the likely impacts and increased flood risk and impact due to increased embankment heights with obstructed free flow across the flood plain are not yet available, so the EIS hydrology should be rejected until we have accurate information on hydrology.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and State guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted Flood Impact Objectives (FIOs) to be more consistent with those adopted along the Narrabn to North Star alignment. Subsequently, ARTC has undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS.</p> <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b) an independent process executed by consultants Future Freight Joint Venture and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rail's program of works.</p> <p>The method of like-for-like design comparison options undertaken as part of the Corridor Options Report is appropriate for design development because it allows designers to evaluate different design options based on a consistent set of criteria. When considering design alternatives, it is crucial to have a fair and objective basis for comparison at a set point in time to ensure that the best design choice is made with the information available at that time. By using like-for-like design comparisons, designers can assess the strengths and weaknesses of each option in relation to specific parameters such as functionality, cost, environmental impact, and feasibility. This approach ensures that all design options are evaluated on an equal footing, providing a fair and unbiased assessment. A chosen design undergoes refinement and adaptation to incorporate inputs such as updated flood modelling, site surveys, geotechnical studies, environmental assessments, and other relevant information. Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Figure 2.14</p> <p>Figure 2.15</p> <p>Appendix B3: Changes to Reference Design since draft EIS</p> <p>Appendix T1: Hydrology and Flooding Technical Report - Volume 1</p> <p>Section 2</p> <p>Appendix E: Consultation Report</p>
184	184.0001	Private	Noise and Vibration	construction airborne noise	The submitter has significant concern about the noise and vibration in the construction and operation stage of the rail. His house is approximately 120 m from the proposed railway. The submitter wants the proponent to mitigate and eliminate any impacts of noise and vibration.	Nil.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during both construction and railway operations. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Border to Gowrie alignment.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area (Chapter 16: Noise and Vibration, Sections 16.5 and 16.10).</p> <p>Operational road traffic noise impacts have been predicted based on a preliminary road traffic noise assessment and conservative assumptions. Operational road traffic noise mitigation measures will be determined on a receptor-by-receptor basis following a detailed operational road traffic noise assessment during detailed design. The noise mitigation hierarchy detailed in the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 1: Road Traffic Noise has been recommended for the management and mitigation of operational road traffic noise impacts.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
189	189.0005	Private	Noise and Vibration		The submitter is worried about noise, dust, vibration and the effects it will have on their health (husband is an asthmatic) and that of the livestock.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>A qualitative assessment of construction dust impacts assessment was also undertaken for the Project, as presented in Section 12.5.1 of Chapter 12: Air Quality. The construction dust assessment did not consider impacts to animal welfare as there are no air quality goals for dust prescribed by Commonwealth, State or Local Governments which are set for the protection of animal welfare. However, the construction dust assessment considered impacts to human health and aesthetic amenity, which have stricter legislated air quality goals than the concentration and deposition levels which are indicated to impact animal welfare (Andrews & Shrikandarajah, 1992, Donham, 1991, and Donham et al, 1995).</p> <p>Recommended mitigation measures to minimise dust emissions from the construction of the Project are presented in Section 12.6 in Chapter 12: Air Quality. These recommended mitigation measures will reduce the risk of significant air quality impacts at sensitive receptors, including animals. The recommended mitigation and management strategies are included in Chapter 24: Draft Outline Environmental Management Plan for the Project.</p> <p>The revised draft EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments.</p> <p>Noise and vibration impacts to livestock are not assessable under the revised draft EIS terms of reference and relevant legislation. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p>	<p>Chapter 12: Air Quality</p> <p>Section 12.5.1</p> <p>Section 12.6</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.9</p> <p>Section 16.10</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
191a	191a.0001	Private - Brookstead	Stakeholder Engagement		The submitter feels that the community consultation process has not been credible and trustworthy as claimed in the Aims and Methodology of Appendix C of the draft EIS. There is a lack of transparency and lack of willingness to consult and engage with impacted landholders in a collaborative manner evidenced by lack of detail in minute taking by ARTC at CCC meetings and multiple corrections required to minutes from most meetings.	The draft EIS should be rejected because: <ol style="list-style-type: none"> It does not comply with the TOR set by the Coordinator General. Stakeholder engagement through the Community Consultative Committees has failed. Consultation must be redone. The EIS process around flood modelling, flood impacts and consequent rail design needs to be redone and include the response and recommendations of the independent panel and the community. Given the failure of past stakeholder engagement and the subsequent damage to affected communities caused by ARTC's approach, the CG should remove the responsibility from ARTC for ongoing stakeholder engagement. 	<p>The Southern Darling Downs CCC operated in line with its agreed Charter (available online). This specifies that the scope of the committee is to:</p> <ul style="list-style-type: none"> Receive briefings and updates on the Project Discuss and provide comment or feedback on negotiable aspects of the Project Represent community views regarding local issues, impacts and benefits Act as a conduit to provide information about the Project to the broader community. <p>ARTC has complied with the EIS ToR.</p> <p>Minutes of all past meetings are available on the CCC webpage. These demonstrate that the scope of the committee has been met. Minutes are distributed to members for review prior to publication. Committee members, through the chair, are given the opportunity prior to any meeting to provide topics to be included in the agenda of upcoming meetings.</p> <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, an independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to Inland Rail, as well as other relevant tasks.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p>
191a	191a.0002	Private - Brookstead	Stakeholder Engagement		Lack of input of local knowledge - In the SDCCC meeting on 13 June 2019, committee members presented landholder feedback providing photographic evidence of additional flood water not included in the flood model. Affected landholders on the Condamine floodplain have been repeatedly told by ARTC and their representatives that the flood heights on properties from previous flood events are inaccurate. The community still feels that the issue hasn't been adequately resolved by ARTC.	Nil.	<p>Appendix E: Consultation Report, Section 5.3 details the community engagement undertaken to inform the Condamine River flood model and the floodplain crossing design. This included one-on-one and small group meetings with landowners to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design, and surveying historic flood markers on private property.</p> <p>The community consultative committees (CCCs) were only one part of the community engagement program. Detailed minutes of each of the community consultative committee meetings are available on the Inland Rail website.</p> <p>The Condamine floodplain crossing design has been updated to incorporate community feedback. Key changes include:</p> <ul style="list-style-type: none"> Extending the proposed bridge over the North Branch by approximately 250 m north Moving the proposed Yandilla rail bridge further south and combining with the proposed Grasree Creek bridge Increasing the number of proposed culverts near Yandilla grain silos to ensure the drainage channel to the south of the silos has sufficient culverts to convey flood water. <p>As noted in Chapter 24: Draft Outline Environmental Management Plan, ARTC is continuing to consult with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered in the EIS and revised reference design. Feedback from this consultation will be used to update flood modelling for the Project, if appropriate to do so. Outcomes of this consultation and revised local catchment modelling will be incorporated into the Final EIS.</p> <p>Consultation with impacted stakeholders will continue through detailed design of the Project to ensure that alterations to the design and its impacts are communicated back to landowners. Impacts are to be determined at all drainage structures and waterways affected by construction works. The change in flood levels and impacts on infrastructure and properties outside the rail corridor must be justified for a range of events up to and including the 1% AEP event.</p> <p>The Condamine River flood model has been subject to review by an independent panel of experts. ARTC and its consultants are working to update the flood model in accordance with the flood panel's recommendations.</p>	<p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Section 5.1</p>
191a	191a.0003	Private - Brookstead	Stakeholder Engagement		ARTC representative unable to answer queries - an ARTC representative who spoke on noise and vibration issues spent 30-40 minutes merely talking and not engaging with the community. This speaker was then unable to clearly answer any specific questions, leaving community members more confused and concerned about the noise and vibration issues of 500-tonne freight trains.	Nil.	<p>ARTC notes the feedback on the presentation skills of the noise and vibration subject matter expert who presented to the CCC meeting on 18 September 2019. ARTC notes that the meeting minutes include the technical information presented, which provides an alternative way for members to receive the information. ARTC further notes that the meeting minutes were accepted by the committee as an accurate record of the meeting and do not indicate that there were any questions unable to be answered.</p> <p>ARTC also notes it also presented to the community consultative committees (CCCs) on noise and vibration again on the 1 December 2020 meeting as a follow on to ongoing questions from the committee. These meeting minutes are also available online.</p>	N/A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
191a	191a.0004	Private - Brookstead	Stakeholder Engagement		ARTC has not undertaken a Stakeholder satisfaction survey (Appendix C, Section 2.5 p10), and this is a vital missing link in the consultation process, as it would provide clear evidence of the success of this process.	Nil.	ARTC has now implemented quarterly community surveys to obtain feedback on communications and interactions with the community. Details of the survey are found in Appendix E: Consultation Report, Section 4.6.8.	Appendix E: Consultation Report Section 4.6.8
191a	191a.0005	Private - Brookstead	Stakeholder Engagement		The EIS response column in Table 5.20 lists a broad Chapter or Appendix that deals with the general topics raised, however in no way indicates any specific resolution or action around the questions and feedback raised in the CCC process.	Nil.	Minutes of all CCC meetings are available on the CCC webpage: <ul style="list-style-type: none"> inlandrail.artc.com.au/building-inland-rail/working-with-communities/community-consultative-committees/sdd-ccc/ inlandrail.artc.com.au/building-inland-rail/working-with-communities/community-consultative-committees/idd-ccc/ These demonstrate that scope of the committee has been met.	N/A
191a	191a.0006	Private - Brookstead	Flooding - Condamine River		Ongoing issues around the Condamine floodplain crossing that have not been adequately resolved, and these include the flood model, flood impacts and bridging to mitigate risk and soil erosion due to culvert design.	Nil.	Construction and operations flood impacts on land in the Condamine River floodplain have been described in Section 14.8.1 of the EIS (Chapter 14: Flood and Geomorphology) and Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 7.5.3. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. In addition, the Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC has undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. This mapping has been included within the revised draft EIS to provide more granularity around potential flood impacts on land during operation, along with updated modelling results and further discussion of results. Mapping can be found in Appendix T2: Hydrology and Flooding Technical Report - Volume 2 and the online digital platform. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3 Appendix T2: Hydrology and Flooding Technical Report - Volume 2
191a	191a.0007	Private - Brookstead	Stakeholder Engagement		According to the SDCCC charter, the committee will be chaired by an independent person referred to as the Chair. However, Chair has acted outside of his designated "independent" role, in order to influence the decisions and actions of CCC members, discourage committee member input and interactions in a threatening manner. The Chair has also 'shut-down' and limited question time for community observers to 10 minutes at the end of each meeting, and when meetings have not run to time, this question time has been further limited or closed off.	Nil.	The Southern Darling Downs CCC operated in line with its agreed Charter (available online). This specifies that the scope of the committee is to: <ul style="list-style-type: none"> Receive briefings and updates on the Project Discuss and provide comment or feedback on negotiable aspects of the Project Represent community views regarding local issues, impacts and benefits Act as a conduit to provide information about the Project to the broader community. Minutes of all past meetings are available on the CCC webpage: <ul style="list-style-type: none"> inlandrail.artc.com.au/building-inland-rail/working-with-communities/community-consultative-committees/sdd-ccc/ inlandrail.artc.com.au/building-inland-rail/working-with-communities/community-consultative-committees/idd-ccc/ These demonstrate that scope of the committee has been met. Question time for observers is at the discretion of the Chair. The committee charter specifies "On conclusion of the business of the Committee, and time permitting, the Chair will provide the opportunity for observers to ask questions of ARTC. ARTC notes that it advertises all CCC meetings online, through newsletters and regional newspapers and this advertising gives community to direct any questions or concerns they would like asked at a CCC meeting to the committee. ARTC also notes that it provides multiple other opportunities for community members to ask questions including online, via phone, email, one-on-one meetings, and community information sessions."	
191b	191b.0001		Economics		The Project rational with regard to the economic benefits of the Project has not been substantiated by facts in the draft EIS. The submitter has provided alternative evidence as follows: 1. The Millmerran Branch Line was severely damaged by flood waters in 2010-2011, and in the last 10 years no grain has been transported from Millmerran to Brisbane. Hence, the Inland Rail freight for grain transport from this region cannot compete with road transport rate. 2. The submitter also questions how the IR is expected to carry out increased agricultural freight given the current IR design does not go to Brisbane port but terminates in Acacia Ridge which will add to the cost of agricultural produce. The cost will also increase given multiple merchant and suppliers are replacing the single desk structure of GrainCorp who is the sole marketing agent. 3. They also highlight that GrainCorp takes 3 hours to deliver freight from farm gate to Brisbane Port which will triple with the IR facility. Similarly, the submitter outlines that with the nearest receival depot in Acacia Ridge in Brisbane any produce transferred to Melbourne, for instance, would take 2 hours at each end more (totalling 28 hours). There will additional costs associated with this, as well as in having 3 different modes of transport.	The draft EIS should outline the current reality of road versus rail options for agriculture produce transfer on the South West and Millmerran Branch line. The business claim should be substantiated with examples/ scenarios.	The vast majority of freight carried on Inland Rail will be bulk container freight destined for domestic intermodal terminals and further distributed throughout South East Queensland (SEQ) (Inland Rail Programme Business Case, 2015). Inland Rail will have a connection direct to the Port of Brisbane from day one of full operations via connection in the vicinity of the Acacia Ridge terminal to the existing dual-gauge freight line operated by QR connecting to the Port. Further, trains going through to the Port of Brisbane (including obviously grain trains) do not need to be double-handled after the grain is loaded on to the train. Grain producers will seek to make use of the most efficient and cost effective method of transporting grain to the Port, and within a certain distance from the Port that may well be via road transport rather than rail. It is noted that in the revised draft EIS only 2 of 19 trains using Inland Rail in year 2028 will be Queensland grain trains travelling from Yelarbon to Fisherman's Island at the Port of Brisbane and only 3 of 24 in 2040 will be such trains.	Chapter 18: Economics Section 18.4
191c	191c.0001	Private - Brookstead	Landscape and Visual Amenity		The impact of visual amenity in community is high (and not moderate as stated) due to a 2.5 m embankment and then bridging extending out from Pampas. The submitter disputes the claim that powerlines and power poles only cause moderate obstructions to the sunset view.	The design should then be modified to improve the high impact on visual amenity to preserve the landscapes and views around Pampas to meet the visual amenity needs of local residents and a high proportion of tourists heading to the Yarramalong Weir camp ground.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered. The landscape and visual impact assessment has been updated in Section 8.2.18 - Viewpoint 13 (now 18) of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment to reflect changes to the alignment and road works within the vicinity of Pampas due to consultation with the Department of Transport and Main Roads. Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location (refer Section 8.2.17 of Appendix K: Landscape and Visual Impact Assessment). An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns. It is also noted that there are a relatively low number of nearby permanent residential receptors and a low number of transient sensitive receptors anticipated to be experiencing views along Millmerran-Leyburn Road (2019 AADT 190 vehicles, 24% of which are heavy vehicles). Whilst Millmerran-Leyburn Road provides access to Yarramalong Weir, it is not anticipated that views from the Weir itself will be impacted. Whilst embankments of up to around 3 m are proposed in this location, it is not considered that the scale will be equivalent to that provided in Viewpoint 17 (now 22), which are up to around 13 m above existing levels. Potential impacts of rail bridges in this location are considered to be represented by Viewpoint 12 (now 17). ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 8.2.16 Section 8.2.17 Section 8.2.18
191c	191c.0002	Private - Brookstead	Landscape and Visual Amenity		The Gore Highway is on the Open Plains Country Drive tourist route (as noted in the draft EIS) and provides access to Yarramalong Weir, a popular local tourist attraction 7.5 km from the Gore Highway. The submitter states that this will impact a wide cross-section of the tourist travellers who wish to experience this rural locality. It will result in permanent, irreversible, adverse change to the landscape during both construction and operational phases of the Project.	Nil.	The landscape and visual impact assessment has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla and provides a visualisation of proposed infrastructure in this location. The Landscape and Visual Impact Assessment (LVIA) has assessed impacts associated with the proposed route, and as such we are unable to comment on the relative merits (from a landscape and visual perspective) of potential alternative options that may have been considered. An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns. It is also noted that there are a relatively low number of nearby permanent residential receptors and a low number of transient sensitive receptors anticipated to be experiencing views along Millmerran-Leyburn Road (2019 AADT 190 vehicles, 24% of which are heavy vehicles). Whilst Millmerran-Leyburn Road provides access to Yarramalong Weir, it is not anticipated that views from the Weir itself will be impacted. Whilst embankments of up to around 3 m are proposed in this location, it is not considered that the scale will be equivalent to that provided in Viewpoint 17 (now 22), which are up to around 13 m above existing levels. Potential impacts of rail bridges in this location are considered to be represented by Viewpoint 12 (now 17). ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 8.2.16

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
191c	191c.0003	Private - Brookstead	Landscape and Visual Amenity		The submitter disputes the claim made in the draft EIS that the Condamine floodplain has low sensitivity in terms of adverse impacts on existing landscape character and values. The submitter states that the Condamine floodplain was originally open grassland with naturally very sparse occurrence of trees. While the grass has been cultivated to form agricultural cropping lands, there has been limited change to the long-distant views and strong skylines over the past 100 years. The submitter also disputes the claim that the vegetation in low-lying areas has been extensively cleared, as it was not dense in the natural environment to begin with.	Facts need to be checked and justified in the EIS as these claims are not accurate.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of the revised draft EIS Appendix K: Landscape and Visual Impact Assessment Technical Report and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts, including Viewpoint 12 (now 17) which discusses impacts on the Condamine River floodplain and riparian corridor between Pampas and Yandilla. As noted in the Section 4.7 of Appendix K: Landscape and Visual Impact Assessment, these are the general principles identified in the Guidance Note for Landscape and Visual Assessment (GNLVA) (AILA, 2018). Each landscape and viewpoint assessment within the LVIA has been independently assessed on their associated values. It is also noted that "Wide brown land" is not a term used in the landscape assessment as it relates to a poem (not a recognised landscape assessment technique), however impacts on the Condamine River, its floodplain and the rural landscape are discussed in the assessment of impacts on Landscape Character Type (LCT) A, LCT C and LCT D (Section 7.1 of Appendix K: Landscape and Visual Impact Assessment). Regarding the sensitivity of the rural landscape, no change is proposed as agricultural landscapes associated with LCT C have a low sensitivity to change due to their highly modified state (with the exception of remnant vegetation associated with waterways which is addressed in LCT A). In addition we note that existing rail infrastructure (whilst not currently operational) associated with the Millmerran Branch railway is still evident in this location. The submitter claims that no visualisations are provided for the Condamine floodplain which is incorrect, as a visualisation is provided for Viewpoint 12 (now 17) near Pampas. The assessment of Viewpoint 17 as having a low sensitivity is considered appropriate due to the relatively low number of permanent receptors in this location and transient nature of views experienced along the Gore Highway. Regarding Viewpoint 13 (now 18), the sensitivity is considered to be Moderate as there are only a relatively small number of residents within Pampas and the existing condition is affected by the presence of the Gore Highway, disused railway and existing powerlines and power poles. An additional viewpoint (Viewpoint 16) and visualisation has been provided to assess potential impacts on Millmerran-Leyburn Road (Section 8.2.16 of Appendix K: Landscape and Visual Impact Assessment) in response to community concerns. It is also noted that there are a relatively low number of nearby permanent residential receptors and a low number of transient sensitive receptors anticipated to be experiencing views along Millmerran-Leyburn Road (2019 AADT 190 vehicles, 24% of which are heavy vehicles). Whilst Millmerran-Leyburn Road provides access to Yarramalong Weir, it is not anticipated that views from the Weir itself will be impacted. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Ongoing consultation with affected private landowners will be undertaken to determine appropriate opportunities for at-property mitigation measures and treatments.	Appendix K: Landscape and Visual Impact Assessment Section 4.0 Section 4.7 Section 7.1 Section 8.2.16
191d	191d.0001	Private - Brookstead	Social Impact Assessment		The submitter is an affected landowner. He raises concerns about his mental health and wellbeing due to the tensions as a result of this IR Project. As of 2021 he has been involved in the Project as a PRG member and has been on the SDCCC since its inception. He failed to sleep adequately through the night given the unpredictability of the Project and because no one would listen to the issues that the submitter region is facing. He also raises similar conditions for several people in Brookstead which is in the Project alignment. The draft EIS should be rejected because: <ul style="list-style-type: none"> the draft EIS is incomplete due to the omissions of a community wellbeing plan that will not be ready till the detailed design phase. In event of this omission the true extent of social impact on the Brookstead community cannot be determined. 	Nil.	Revised draft EIS Appendix X: Social Impact Assessment, Section 7.4.2 acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landholders' concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access local and independent mental health support services. This includes the New Access Program delivered by Richmond Fellowship Qld or Lives Lived Well, which helps people experiencing stress and anxiety through face-to-face or telephone support available at no cost, and without the need for a referral. Measures outlined in Chapter 24: Draft Outline Environmental Management Plan of the revised draft EIS are designed to avoid or mitigate environmental impacts such as noise, vibration, dust and changes to visual amenity which could otherwise affect quality of life or community wellbeing. Notwithstanding, whilst construction activities are occurring, the Project could impact on community values that support wellbeing. Appendix X: Social Impact Assessment, Section 8 provides a comprehensive Social Impact Management Plan addressing identified impacts, including community and stakeholder engagement, workforce management, housing and accommodation, community wellbeing and local business and industry. The timing for development of the Community Wellbeing Plan (during the detailed design stage), as outlined in Appendix X: Social Impact Assessment, Section 8.5.6, acknowledges that a process of deliberation with key stakeholders is required to develop the plan, including the respective and responsibilities of stakeholders for delivery of specific initiatives. Both ARTC and the Contractor, along with Councils, Government agencies and community organisations, will have a role in plan implementation, with a consultation process required to confirm stakeholder involvement. ARTC has continued engagement with Councils regarding initiatives to be articulated in the Community Wellbeing plan during the EIS display and post display period. The results of this consultation have been added to Appendix X: Social Impact Assessment, Section 8.5.6.	Chapter 24: Draft Outline Environmental Management Plan Appendix X: Social Impact Assessment Section 7.4.2 Section 8 Section 8.5.6
191d	191d.0002	Private - Brookstead	Noise and Vibration		The small town of Brookstead lies in close proximity to the proposed rail and will be impacted by noise and vibration in the construction and operation stages. No alternative solutions have been discussed with the community for a feasible alternative with less social impact. The Brookstead Hall should be identified in Section 5.42 as an affected community building. The draft EIS provides no details about how the social impacts arising from noise and vibration will be minimised or mitigated.	Nil.	ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data to identify sensitive receptors within the EIS study area in accordance with the Department of Transport and Main Road (Qld) guidelines. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. The Brookstead Community Hall has now been included as a sensitive receptor for modelling purposes and for impact assessment. ARTC is now confident that all sensitive have now been identified for use in the draft revised EIS. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area. The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
191d	191d.0003	Private - Brookstead	Stakeholder Engagement		Very few residents from the local community in Brookstead has participated in the survey as it was poorly advertised and promoted by ARTC. The resident were unaware of any involvement of Elliot Whitting as a SIA proponent until the EIS was realised. In this way, the draft EIS has failed to represent the views of the community members who may be impacted by the Project. He also raises the issue that a total of 121 surveys responses were received of which 114 respondents identified as residential location. Appropriate 83% of surveys were from Toowoomba LGA and 7% from Goondiwindi. The remaining from other LGAs. The submitter states that with a population of approximately 160,779 surveys response from Toowoomba LGA sample has very limited statistical validity.	Nil.	Appendix E: Consultation Report, details the engagement carried out by ARTC to inform the Social Impact Assessment (SIA). It also details the distribution and promotion of the community survey, which included a newsletter delivered to the study area and adjacent communities in October 2018, email to 1,464 registered stakeholders, the November and December e-newsletters, at the November 2018 community information sessions and at the November 2018 IDD CCC meeting. In addition, a hard copy of the survey and a postage-paid return envelope was mailed to 212 landowners in the focused area of investigation in December 2018. ARTC notes that the community survey was only one element of the community engagement carried out to inform the SIA. The revised draft SIA has considered the results of consultation conducted between March 2021 and June 2022. Other elements are described in Appendix E: Consultation Report.	Appendix E: Consultation Report
191e	191e.0001	Private - Brookstead	Nil Response		Duplicate submission of 191d.	Nil.	ARTC acknowledges the submitters concerns. Please refer to the responses to submission number 191d.0001 to 191d.0003 for how these concerns have been addressed.	N/A
191f	191f.0001	Private - Brookstead	Nil Response		Duplicate submission of 191d.	Nil.	ARTC acknowledges the submitters concerns. Please refer to the responses to submission number 191d.0001 to 191d.0003 for how these concerns have been addressed.	N/A
192a	192a.0059	Community Group	Project scope		Appendix 1 Correspondence covers a large volume of supporting material, including a flood report from WRM water, minutes of meetings, letters, media releases, reports, submissions to the senate inquiry, meeting agendas, media releases, briefing notes, brochures, maps, media articles, Hansard records, meeting presentations.	Nil.	As stated in Chapter 6: Stakeholder Engagement, Table 6-8 all submissions received from stakeholders were reviewed by the Coordinator-General. This includes the items included in Appendix 1 - documents and correspondence supporting, of Submission 192 received from Millmerran Rail Group. Chapter 6: Stakeholder Engagement, Section 6.4.2 states that in December 2021, following consideration of the draft EIS and stakeholder submissions, the Coordinator-General notified ARTC that additional information was required. A formal request for additional information was issued to ARTC on 4 January 2022. ARTC has completed additional investigations, assessments and stakeholder engagement to inform the revised draft EIS and address issues raised in the submissions. This engagement process also included incorporating design refinements and additional mitigation measures into the reference design in response to feedback received from directly and indirectly impacted stakeholders, resulting in several reference design changes and mitigation measures. Responses to the items raised in the body of the submission 192 will be inclusive of the consideration given to the items included in Appendix 1 of submission 192.	Chapter 6: Stakeholder Engagement Section 6.4.2 Table 6-8
192a	192a.0059	Community Group	Project scope	Baseline/ background sampling	In addition to the main submission an appendix 1 is provided which provides supporting material across all areas. Document includes letters, briefing material, media releases, meeting minutes, presentations, maps, Hansard records. Transcripts and an independent review of flood modelling prepared by WRM Water and Environment (Condamine River). Several videos also provided of local flood events.	Nil.	As stated in Chapter 6: Stakeholder Engagement, Table 6-7 all submissions received from stakeholders were reviewed by the Coordinator-General. This includes the items included in Appendix 1 - documents and correspondence supporting, of Submission 192 received from Millmerran Rail Group. Chapter 6: Stakeholder Engagement, Section 6.4 states that in December 2021, following consideration of the draft EIS and stakeholder submissions, the Coordinator-General notified ARTC that additional information was required. A formal request for additional information was issued to ARTC on 4 January 2022. ARTC has completed additional investigations, assessments and stakeholder engagement to inform the revised draft EIS and address issues raised in the submissions. This engagement process also included incorporating design refinements and additional mitigation measures into the reference design in response to feedback received from directly and indirectly impacted stakeholders, resulting in several reference design changes and mitigation measures. Responses to the items raised in the body of the submission 192 will be inclusive of the consideration given to the items included in Appendix 1 of submission 192.	Chapter 6: Stakeholder Engagement Section 6.4 Table 6-7
192a	192a.0060	Community Group	Flooding		Report prepared by WRM Water and environment - Independent review of flood modelling undertaken for the Condamine river. Recommendations made: <ul style="list-style-type: none"> update flood modelling for existing conditions and the Reference Design be updated prior to approval the draft EIS. investigate and report on more frequent flood events than 20% AEP modelled events. include quantitative limits for flood impact objectives. Flood impact objectives provide more guidance with respect to acceptable flood impacts. EIS to adequately identify and justify the acceptability of changes in flood impacts. mapping to be provided for all flood events and as well as more frequent events such as 50% AEP. flood impacts presented so that a landholder can determine impacts to their property. consistent best practice approach that considers losses for piers and superstructure as well as some debris blockage/ - sensitivity testing for bridge/ waterway structures. document miscellaneous infrastructure that could impact flood behaviour and their impact on the FIO detailed. additional discussion on potential addition mitigation. a discussion on future/ planned road upgrades and the mitigation of additional impact. FIO to be assessed for road upgrades. 	Nil.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the revised draft EIS for further consideration by landowners and the Coordinator-General's office. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Appendix T1: Hydrology and Flooding Technical Report - Volume 1, Section 2 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC has undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
193	193.0087	Community Group	Noise and Vibration	Modelling	TOR item 11.121 not adequately addressed due to multiple route alignment options crossing DA Hall properties not considered in assessment. The multiple Inland Rail alignment options for DA Hall properties will have varying degrees of impact relating to noise and vibration. The close proximity of some of these route alignments to current poultry operations is not reflected in the reference designs of the draft EIS.	Nil.	<p>Regarding the Project route, the preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community Chapter 2: Project Rationale Section 2.8 and 2.9). The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders, and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). The final reference design in the revised draft EIS minimise to the greatest extent practicable, impacts to intensive livestock operations by creating buffer distances between the rail alignment and current operations.</p> <p>In addition, the Project alignment has been revised since submission of the draft EIS. The Millmerran Alternative Alignment (MAA) alignment has been based upon ongoing consultation with local business and community (refer to Chapter 2: Project Rationale, Section 2.9.3). The proposed updated reference design for the revised draft EIS is expected to reduce potential impacts or risks associated with Inland Rail operational noise, vibration, light emissions, and biosecurity risks on DA Hall's business by creating greater separation of the main business infrastructure and the alignment.</p> <p>ARTC is committed to working directly with impacted landowners to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and landowners will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The revised "Millmerran Alternative Alignment" has been selected with the following criteria:</p> <ul style="list-style-type: none"> completely avoids severing high intensive animal and agricultural industries (including Class and Class B Agricultural Areas) increase of safety and travel benefits for the community rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event the new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure reduces adverse economic and social impacts. 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3
193	193.0088	Community Group	Noise and Vibration	Baseline/ background sampling	TOR item 11.117 not adequately addressed - the draft EIS doesn't describe the existing noise and vibration environment relating to the area of DA Hall affected by the Project.	Nil.	<p>Environmental noise levels were surveyed outdoors at 29 locations within the noise and vibration study area (Section 16.5 of Chapter 16: Noise and Vibration and Section 5.4 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. Noise measurement locations were selected to represent the geographic range of the sensitive receptors along the Project alignment.</p> <p>The most stringent applicable construction noise criteria were adopted across the Project as a result of the low existing background noise levels measured at the surveyed locations. Additional noise measurements would not have lowered the adopted noise criteria in that area.</p>	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.4
193	193.0089	Community Group	Noise and Vibration	Directly impacted landowner	TOR item 11.118 not adequately addressed - the draft EIS has not described an illustrated on maps the location of all sensitive noise and vibration receptors adjacent to all Project components. Dwelling receptor ID 256813 is located at the poultry operation, however there are no sensitive receptors for the poultry operation or piggery operation that fall within the Project footprint, influenced by the Inland Rail alignment options.	Include DA Hall & Co poultry operation as a sensitive receptor (other) in the draft EIS.	<p>Livestock facilities are not considered 'sensitive land uses' in the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019) and do not require assessment. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to assess the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p> <p>The alignment through Millmerran has now been optimised via the alignment option 'Millmerran Alternative Alignment' (see Chapter 2: Project Rationale Section 2.10.9). The revised alignment is a result of ongoing consultation with local businesses and community as well as public submissions and provides the following benefits:</p> <ul style="list-style-type: none"> completely avoids severing high intensive animal and agricultural industries (including Class and Class B Agricultural Areas) increase of safety and travel benefits for the community rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event the new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure reduces adverse economic and social impacts no longer identify any impacts imposed on the poultry farm or piggery. Consultation with agricultural industries and other potentially impacted landowners will continue throughout the stages of the Project. 	Chapter 2: Project Rationale Section 2.10.9 Chapter 16: Noise and Vibration Section 16.9
193	193.009	Community Group	Noise and Vibration	Directly impacted landowner	TOR item 11.119 not adequately addressed - impacts of noise and vibration at DA Hall operations has not been considered including in baseline monitoring. Chapter 14 fails to acknowledge in any way the potential for and the type of impact specific to poultry and piggery operations. Applying standard criteria, and therefore mitigation measures, have failed to meet the intent of consultation and address Project-specific issues. Reference to Taylor Byrne report Appendix in 193a.	Describe the existing noise and vibration environment and describe the adverse impact from Inland Rail operation on the noise and vibration environment at DA Hall & Co poultry.	<p>The background noise level is used to establish the construction noise criteria. Background noise monitoring was undertaken at 29 representative locations along the Project alignment (Section 16.5 of Chapter 16: Noise and Vibration and Section 5.4 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The most stringent applicable construction noise criteria were adopted across the Project as a result of the low existing background noise levels measured at these locations. Additional noise measurements at Doug Hall & Co Poultry would not have lowered the adopted noise criteria.</p> <p>Noise and vibration impacts to livestock are not assessable under the revised draft EIS terms of reference and relevant legislation. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p> <p>The alignment through Millmerran has now been optimised via the alignment option 'Millmerran Alternative Alignment' (see Chapter 2: Project Rationale, Section 2.10.9). The revised alignment is a result of ongoing consultation with local businesses and community as well as public submissions and provides the following benefits:</p> <ul style="list-style-type: none"> completely avoids severing high intensive animal and agricultural industries (including Class and Class B Agricultural Areas) increase of safety and travel benefits for the community rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event the new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure reduces adverse economic and social impacts no longer identify any impacts imposed on the poultry farm or piggery. Consultation with agricultural industries and other potentially impacted landowners will continue throughout the stages of the Project. 	Chapter 2: Project Rationale Section 2.10.9 Chapter 16: Noise and Vibration Section 16.5 Section 16.9 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.4
193	193.0092	Community Group	Noise and Vibration	Modelling	TOR item 11.125 not adequately addressed - identification of relevant criteria parameters for impacts to poultry from noise and vibration would further inform appropriate mitigation measures.	Condition ARTC Project footprint to avoid the impact area for poultry operations as determined by criteria and impact assessment prepared by industry experts.	<p>Noise and vibration impacts to livestock are not assessable under the revised draft EIS terms of reference and relevant legislation. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on livestock. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p> <p>The alignment through Millmerran has now been optimised via the alignment option 'Millmerran Alternative Alignment' (see Chapter 2: Project Rationale, Section 2.10.9). The revised alignment is a result of ongoing consultation with local businesses and community as well as public submissions and provides the following benefits:</p> <ul style="list-style-type: none"> completely avoids severing high intensive animal and agricultural industries (including Class and Class B Agricultural Areas) increase of safety and travel benefits for the community rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event the new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure reduces adverse economic and social impacts no longer identify any impacts imposed on the poultry farm or piggery. Consultation with agricultural industries and other potentially impacted landowners will continue throughout the stages of the Project. 	Chapter 2: Project Rationale Section 2.10.9 Chapter 16: Noise and Vibration Section 16.9
193	193.0093	Community Group	Noise and Vibration	Directly impacted landowner	Submitter references report undertaken by Taylor Byrne Impact assessment report (by Dr Scott) noting the impacts from rail noise and vibration on animal welfare and loss of production causing loss of business (including estimated economic costs).	Nil.	<p>Poultry operations are considered a construction vibration receptor in Appendix C21 Sensitive receptors of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Noise and vibration impacts to intensive livestock operations have been assessed in Chapter 16: Noise and Vibration. ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. An assessment of potential impacts to intensive animal operations has been conducted based on a criterion of 90 dBA Lmax. The findings and recommendations of the assessment are reported in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p> <p>The alignment through Millmerran has now been optimised via the alignment option 'Millmerran Alternative Alignment' (see Chapter 2: Project Rationale, Section 2.10.9). The revised alignment is a result of ongoing consultation with local businesses and community as well as public submissions and provides the following benefits:</p> <ul style="list-style-type: none"> Completely avoids severing high intensive animal and agricultural industries (including Class and Class B Agricultural Areas) Increase of safety and travel benefits for the community Rail alignment traverses less area impacted by 1% AEP Condamine Floodplain event The new alignment indicates no change to 1% AEP Condamine Floodplain impact objectives on properties housing infrastructure for major regional employer's business infrastructure Reduces adverse economic and social impacts no longer identify any impacts imposed on the poultry farm or piggery. Consultation with agricultural industries and other potentially impacted landowners will continue throughout the stages of the Project. 	Chapter 2: Project Rationale Section 2.10.9 Chapter 16: Noise and Vibration Section 16.9
193a	193a.0001	Community Group	Flooding		Note report: WRM (Dr Marker) Independent Review of Flood Modelling undertaken for the Condamine River Floodplain (commissioned by the Millmerran Rail Group - report number 1283-01-J 29 April 2021). Report attached to submission and referred to throughout to support issues raised.	Nil.	<p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Further design refinement, mitigation, and consultation will continue through the detailed design stage of the Project.</p>	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6
193a	193a.0002	Community Group	Social Impact Assessment	Directly impacted landowner	Note report: produced by Taylor Byrne - Impact assessment of proposed Inland rail route through DA Hall operations. Impact assessment focused on animal welfare, future business expansion option and impact to business operations.	Nil.	<p>The reference design was refined during preparation of the revised draft EIS including re-alignment of the rail corridor to avoid impacts on Doug Hall and Co's poultry and piggery operations which would have affected their employment numbers, and design refinements to avoid impacts on feedlot infrastructure. Appendix X: Social Impact Assessment, Section 8.6.1 has been updated to note the re-alignment and reduction of impacts.</p>	Appendix X: Social Impact Assessment Section 8.6.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
194	194.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Section 3 Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix V: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
194	194.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
194	194.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design phase.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
195	195.0006	Private	Noise and Vibration		Majority of residences in Brookstead and Pampas are marked as sensitive receptors, triggering a review of mitigation. However, several other residences are not marked as sensitive receptors, and these residences are much closer in distance to the rail corridor than many others marked as sensitive. There are apparent discrepancies in the classification of "sensitive receptors" that are not clearly explained in the draft EIS. The draft EIS must justify the criteria for classification of sensitive receptors and why some residences are considered not to be impacted by noise, as this is not clear in the current draft.	Nil.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>The land use and receptor categories that are potentially sensitive to noise and vibration are defined in various regulatory guidelines for Queensland. The following categories have been adopted from CoP Vol 1 (road traffic), CoP Vol 2 (construction) and the Interim Guideline (rollingstock operations) (Section 16.5 of Chapter 16: Noise and Vibration)</p> <p>The description of the various sensitive receptors referenced from the Interim Guideline are discussed in Section 5.1 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>With respect to the assessments done for construction and road traffic noise, the receptors were identified in accordance with the requirements of codes of practice (Section 5.1, Section 5.2, Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5.1</p> <p>Appendix A</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
197	197.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
197	197.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report, Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
198	198.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
198	198.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
2	2.0001	Private	Noise and Vibration	Mitigation measures	Property owners have trees growing on the current rail boundary fence as 'noise mitigation measure'. Have requested additional tree plantings on the new boundary fence.	Inland Rail to provide tree plantings on the new boundary fence to help stop the noise.	The planting of trees on a property boundary is not a noise mitigation measure and will not reduce railway noise. For vegetation to reduce noise by any perceptible level, the vegetation has to be dense and cover large areas. It is therefore not considered a reasonable or practicable noise mitigation measure for this Project. However if residents feel that vegetation would assist with minimising visual impacts this can be considered by ARTC. Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
201	201.0011	Private - Brookstead	Noise and Vibration	Mitigation measures	Submitter states that three of their residences listed as sensitive receptors (260213, 260150, 260165) on the noise and vibration maps (maps 24 and 25 of 53 in Figure 17, Appendix T), however there has been scant detail verbally communicated with them and at no stage has there been mention of mitigation for noise impacts raised or addressed. Submitter highlights that these details are also not presented in full in the draft EIS and form part of the missing information in Table 23.5 of the document.	Nil.	The draft revised EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. During the community engagement process, noise, vibration have been identified as potential negative impacts to the community along the Project alignment. Refer to Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. The railway noise assessment has been conducted in accordance with DTMR's Interim Guideline (2019), to provide a revised impact assessment, including examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The noise and vibration assessment information, including discussion on noise mitigation, can be found in Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.10 of Chapter 16: Noise and Vibration of the draft EIS. The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and residential properties. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors. The draft revised EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced. During detailed design, further detailed engineering, and acoustic assessments, including noise modelling, will be undertaken and will consider sensitive receptors in the vicinity of the Project. Specific and reasonable mitigation measures will be developed and implemented following this detailed assessment and prior to construction commencing and further verification of noise levels during initial operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
201	201.0012	Private - Brookstead	Noise and Vibration	Modelling	Two key business buildings in close proximity to the residences (260213, 260150, 260165) have not been listed on the noise and vibration plan as sensitive receptors. This is another omission within the draft EIS. One business shed houses a workshop, service and maintenance facilities, chemical, fuel and oil storage facilities, office and meeting room and toilet block on 2RP87457. Farming and maintenance operations occur in these buildings from 5am to 7pm on a regular basis, on approximately 80% of days in the year. The business office is within 90 m of the rail corridor and will be impacted by noise and vibration (Map 25 of 53, Figure 17). The second building houses a workshop containing engineering tools and we expect that operation of these large but precise machines will be impacted by vibration. ARTC has not listed this engineering workshop as a sensitive receptor (Map 24 of 53 in Figure 17, Appendix T).	Nil.	The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the construction and Operational noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the draft revised EIS modelling. In accordance with the Terms of Reference and the requirements of the Office of the Coordinator General, the noise assessments for construction, road traffic, and railway operations are based on Codes and guidelines from the Department of Transport and Main Roads. The Codes and guidelines classify receptors sensitive to noise and vibration and there is some variation in the classifications between the guidelines based on the sensitivity to different sources and characteristics of noise. As such, there will be some differences in the way individual buildings are assessed with respect to noise from construction, road traffic, and railway operations. The Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. Sensitive receptors have also been identified in accordance with Department of Transport and Main Roads document Transport Noise Management Code of Practice: Volume 2 – construction Noise and Vibration (CoP V2). These are further detailed in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 5.	Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5
204	204.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area. The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan. Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria. The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration: <ul style="list-style-type: none">▶ Reducing the charge size by use of delays and reduced charge masses▶ Ensuring adequate blast confinement to minimise the amount of overpressure▶ Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative.▶ Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors▶ Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors.▶ Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Section 17.6 of Chapter 17: Social. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 2: Project Rationale Section 2.9.3 Chapter 16: Noise and Vibration Section 16.6 Section 16.10 Chapter 17: Social Section 17.6 Chapter 24: Draft Outline Environmental Management Plan
204	204.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration). Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor. In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP04) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03A/B and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. fragile vegetation zone requirements and sightlines) that cannot be resolved at this stage. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4 Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Section 5.6 Section 5.10 Appendix K: Landscape and Visual Impact Assessment Section 8.2 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17.4
205	205.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	The small town of Brookstead lies in close proximity to the proposed rail corridor. Most residences have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation (Chapter 14), and the Brookstead State School also lies within 90 to 100 m from the proposed rail corridor. The submitter states that all residences in Brookstead will suffer from daytime disruption and night-time sleep disturbance factors due to construction and operation of the rail. However, no alternative solutions have been discussed with the Brookstead community for a feasible alternative with less social impacts on day-to-day activities at the school or in the community, and this falls short of the requirements of Section 6.7 in the TOR.	The draft EIS does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018.	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Potential mitigation measures have been included in the revised draft EIS Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic and Section 16.10 of Chapter 16: Noise and Vibration. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations. ARTC has engaged with Department of Education (QLD) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.	Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
205	205.0004	Private - Brookstead	Noise and Vibration	Modelling	The Brookstead Community Hall has not been identified in Section 5.42 as an affected community building.	Nil.	<p>The comment regarding the Brookstead Community Hall is acknowledged. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment (Appendix A of Appendix V: Noise and Vibration Assessment construction and Road Traffic and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations). ARTC has used the latest building data to identify sensitive receptors within the EIS study area in accordance with the Department of Transport and Main Road guidelines.</p> <p>The revised draft EIS has now included the Brookstead Community Hall as a sensitive receptor for the revised noise and vibration modelling. The revised draft EIS Chapter 16: Noise and Vibration and Appendix W: Noise and Vibration Assessment - Railway Operations and Appendix V: Noise and Vibration Assessment construction and Road Traffic has been updated accordingly to show potential noise and vibration impacts from both construction and operations at the Brookstead Community Hall.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Appendix A</p> <p>Appendix V: Noise and Vibration Assessment construction and Road Traffic</p> <p>Appendix A</p>
205	205.0007	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind settling which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passby events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passby events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passbys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passbys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
206	206.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.9.3 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>
206	206.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP04) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. fragile vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p>
207	207.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Chapter 2: Project Rationale Section 2.9.3, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMRs Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.9.3</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
207	207.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP04) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. fragile vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4</p> <p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17.4</p>
208	208.0002	Private - Brookstead	Noise and Vibration	Modelling	Noise impacts are not clearly and consistently defined and variability due to predominant wind direction is not considered. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation (Chapter 16: Noise and Vibration, Section 16.6 and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6). Construction noise impacts predicted for each sensitive receptor are modelled in accordance with the requirements of CoP Vol 2 that factors in a set of meteorological conditions including a slight downwind setting which enhances propagation from the source to receptor. The construction noise modelling methodology is discussed further in Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 4.3. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment.</p> <p>The revised rail noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>The methodology Section further discusses that the Interim Guideline requires the prediction of railway noise to be undertaken using the Kilde 130 modelling methodology. This algorithm does not allow for assessment of varying weather conditions in the prediction of train noise. However, Kilde 130 provides a conservative prediction which is typically greater than more advanced modelling methodologies which allow for modelling of weather effects. Appendix W: Noise and Vibration Assessment - Railway Operations provides a discussion on the consideration of local weather on railway noise (Section 12.3) and the meteorological effects on modelling (Appendix G).</p> <p>Whilst there may be periods when the weather conditions influence the propagation of noise from train passy events, the railway operation are forecast to be 1 to 2 train movements per hour with audible passy events likely to be 2 to 5 minutes in duration. The combination of the duration and intermittency of the train passys would diminish the influence of weather conditions on the railway noise levels assessed over the 24-hour period.</p> <p>The daily noise levels from the steady state noise emissions from idling trains at the crossing loops can be more readily influenced by local weather conditions than noise from the transient train passys. The calculation of noise levels from the trains idling at the crossing loops and level crossing alarms included an allowance for downwind noise enhancing weather conditions and/or moderate temperature inversions. The assessment of various sources of noise from railway operations is appropriate for the assessment of worst-case noise levels.</p> <p>With regards to sensitive receptors, the Interim Guideline identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial stage of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.6</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3</p> <p>Section 6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 4</p> <p>Section 5</p> <p>Section 6</p> <p>Section 10</p> <p>Section 12.3</p> <p>Section 17</p> <p>Appendix G</p>
208	208.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 which demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non compliance with TOR set by CG 16.11.2018 The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage. The incomplete nature of the draft EIS as indicated in Table 23.5. The true noise and vibration impact on the community of Brookstead cannot be determined until the details of the Project footprint, level crossing design, utilities, signalling and communication, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As will all of prior interactions with the proponent, the detail is scant and is 'not yet available'.	<p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The revised draft EIS provides new and updated predictions of worst-case noise levels associated with the construction and operation of the Project based on the current designs and expected activities. The assessments are comprehensive and assess impacts for individual receptors within an area substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. The details of all predictions are provided in the revised draft EIS, Chapter 16: Noise and Vibration (Sections 16.6, 16.7, 16.8) and the technical reports accompanying the EIS; Appendix V: Noise and Vibration Assessment – Construction and Road Traffic (Sections 6 and 7), and Appendix W: Noise and Vibration Assessment – Railway operations (Sections 7, 8, 9, 10).</p> <p>The operational railway noise modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10.</p> <p>Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic, and Section 17 of Appendix W: Noise and Vibration Assessment – Railway Operations. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.6</p> <p>Section 16.7</p> <p>Section 16.8</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment – Construction and Road Traffic Section 6</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment – Railway operations Section 4</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Section 17</p>
21	21.0002	Private	Noise and Vibration	Directly impacted landowner	Concerned about noise on the lives of my children. The house I live in is sound receptor 319012, and the maximum allowable noise is touching the house. No noise mitigation is required is cruel. We have 11 children and 4 of which have special needs. 79 decibels 20 times a day is going to impact sleep.	Construct a noise mitigation barrier at location.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Border to Gowrie alignment. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Specific and reasonable mitigation measures will be developed and implemented following the detailed assessment and prior to operation commencement and further verification of noise levels during initial operations. Particularly, where the modelled noise levels are within a relatively small margin of compliance, the determination of eligibility of treatments, is also likely include the measurement of noise levels from the operation of the Project.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
21	21.0004	Private	Noise and Vibration	Mitigation measures	The submitter is worried about cardiovascular and other health effects of noise from the Project. There are a cluster of residences near the north-west side of the proposed alignment near Purcell Road Umbiram. There should be noise mitigation at this location to protect health of residents.	Noise mitigation barrier here to protect the residents	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Rail Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads' criteria are not met, including the potential for at-property treatments.</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17, and Chapter 16: Noise and Vibration, Section 16.10 of the revised draft EIS provide noise mitigation measures proposed to control noise at residences. These measures include noise barriers and at-property upgrades to existing residences. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
210	210.0003	Private	Noise and Vibration		The proposed alignment at Yelarbon is only metres from the town's main street. What effect will this have noise and vibrations have on the town's residents, homes and businesses and also the farm homesteads that the line goes close to?	The landowners and resident who have land resumed to enable the line to be constructed must be fairly compensated for the loss of their asset and also for the social disruption they suffer.	<p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
212	212.0006	Private	Noise and Vibration	Local business and industry procurement	The noise of the Inland Rail trains will directly disruption the staff working at the Vary Agricultural Services Office on Ware Street Brookstead. The Line is within 100 m of the premises. The horns blowing will add to the disruption creating frustration for staff. The close proximity of the Inland Rail to the weighbridge of 100 m, between Goondiwindi and Toowoomba, will likely cause direct issues with the calibration of the weighbridge. Vary Agricultural Service cart 19,700 tonne in one year of fertiliser. Every truck must be weighed, checked and recorded for every load. Incorrect weights are a cost to the business and the customer. For trucks taking product to market, if a truck is weighed and not correct the truck and driver is banned for two weeks. If there is no guarantee that the weighbridge is correctly calibrated with a high level of confidence, the entire trucking industry locally using the public weighbridge will be compromised. Without the weighbridge in operation, Vary Agricultural Services cannot maintain a viable business.	The weighbridge is externally audited and every 12 months. A failure will put the weighbridge out of commission until it is corrected. If the calibration cannot be corrected, the weighbridge will need to be decommissioned.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. Ground-borne vibration from ground-level train passbys has been assessed and are discussed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13. The assessment has considered the submission regarding the potential vibration impacts on a weighbridge located approximately 100 m from the rail line between Goondiwindi and Toowoomba. A heavy vehicle weighbridge is designed to operate with heavy vehicles manoeuvring adjacent to it and to withstand the dynamic loads of heavy vehicles driving onto the weighbridge. The operation of weighbridges is also not adversely impacted by running diesel engines. In comparison, vibration levels from railway operations 100 m distant from the weighbridge would be significantly less than those associated with truck movement and running diesel engines and is therefore not expected to adversely impact operation of the weighbridge. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 17
213	213.0001	Private	Noise and Vibration		The submitter is concerned about the train noise affecting their home and wellbeing, including affecting her activities such as reading books.	1. Put sound walls/ barriers 2. Redirect route through forest	The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. The preferred location for the proposed rail corridor (as presented in the draft revised EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).	Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
215a	215a.0001	Private - Brookstead	Flooding	Modelling	Issues raised with respect to flood modelling and hydrology which have not been fully resolved and validated. Submitter highlights that the EIS is incomplete as it does not consider: The ongoing investigation by the Senate Rural and Regional Affairs and Transport References Committee into the Management of the Inland Rail Project by ARTC and the Commonwealth Government, which is not due to release its findings and recommendations until 13 May 2021. The ongoing assessment of the Independent Panel of Experts for Flood Studies, which states it expected to complete their work by the end of 2021	Nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.6 Section 8.6
215a	215a.0002	Private - Brookstead	Flooding - Condamine River	Modelling	Concerns raised with respect to the complexity and limitations of modelling the Condamine floodplain with sparse data: The flood model is calibrated on only two flood events (1991 and 2010) and it is to be questioned whether this is sufficient data to build a model for the complex nature of the Condamine floodplain. Both flood events of 1991 and 2010 fall below a 1 in 100 event, equal to an annual exceedance probability (AEP) of 1%. The 2010 flood event is shown as being a 1 in 20 year flood (5% AEP) at the Warwick gauge station, between a 1 in 20 year and a 1 in 50 year flood at the Tummaville gauge station (2-5% AEP) and between a 1-2% AEP at the Cecil Plain Weir. Therefore, predictions for the 2010 flood and allowances for these water heights do not meet the 1 in 100 event requirements for rail design. The model is limited, as the accuracy has not been assessed against a known even of this magnitude.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Calibration of the Condamine River hydrologic and hydraulic models has been completed against two events, 1991 and 2010, with validation performed against the 2013 and more recent December 2021 events. The calibration events have been selected based on available information with selection governed by reliable and accurate data. Further details on event selection for calibration of the Condamine River hydrologic model is provided in Section 7.2.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Further sensitivity analysis to 'stress-test' the Condamine River models was carried out at the request of the Expert Flood Panel, and documented in Sections 7.2 and 7.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. It should also be noted that as per Australian guidelines (Australian Rainfall and Runoff, 2019) minor, moderate, large, and extreme flood events have been modelled. This includes the 1% AEP event, the 1 in 2,000 AEP event, the 1 in 10,000 AEP event and the Probable Maximum Flood (PMF). These events, which are greater in magnitude than calibration events, ensure the design is tested against a full range of flood magnitudes to assess its performance.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.2 Section 7.2.3 Section 7.3
215a	215a.0003	Private - Brookstead	Flooding - Condamine River	Modelling	Issues raised with modelling the complexity of modelling the Condamine system Concerns raised with respect to the data inputs for model calibration are not being used from Tummaville station. Submitter highlights understanding of the unreliability of this gauge station, but also understand the changes in the system between Warwick and Tummaville, and the associated tributaries that enter the system between these two gauging stations. Submitter questions, the importance of the discrepancy in the results in Table 9.15 and Table 9.16 (Appendix Q1), showing the differences between the flood frequency analysis and URBS model flows. Submitter states that surely the URBS model flows in Table 9.16 are a gross under-prediction of the flood frequency analysis peak discharges and requests that these results be more clearly explained and presented in the EIS document.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	URBS results were reconciled against Flood Frequency Analysis at an upstream pivot (Warwick) and a downstream pivot (Cecil Weir + Lone Pine, i.e. 'Outlet'). The match between URBS and FFA flows is not as strong at the 'outlet' compared to that at Warwick and is a result of the URBS model being insufficient for capturing the full floodplain behaviours (e.g. braided channels and large storage) downstream of Warwick, which must be resolved hydraulically. To clarify these uncertainties, in consultation with the Expert Flood Panel, the Condamine River hydraulic model has been extended past the Cecil Weir gauge to enable a joint calibration/ validation with the URBS model for four well-recorded historical events (1991, 2010, 2013, 2021) (Section 7 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). The joint calibration/validation found that the differences between modelled and recorded flood levels at Cecil Weir were between +60 mm (+0.6% difference in depth) and +250 mm (3.4% difference in depth) respectively. The current design hydrology and flood modelling approach are considered suitably robust and conservative for the purposes of the revised draft EIS. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7
215a	215a.0004	Private - Brookstead	Flooding	Modelling	Concerns raised with respect to the validation of the flood model Submitter highlights that with respect to the floodmarks, summarized in Table 9.28, that the validation exercise has eroded trust and credibility in the flood model, rather than increased confidence in the model as claimed in the draft to page 13-14 for further technical detail.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	2010 floodmark validation has been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Updated floodmark validation results can be found in Table 7.31 of Section 7.3.7 in Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.3.7 Section 7.6 Section 8.6 Table 7.31
215a	215a.0005	Private - Brookstead	Stakeholder Engagement		Submitter raises concerns with respect to community consultation around the flood model. Submitter highlights that until this point in time; ARTC, FFJV as well as Dr Macintosh had been brushing aside documented photographic evidence for certain flood events that show clear justification for the community's flood height records	Nil.	Appendix E: Consultation Report, Section 5 of the revised draft EIS detail the community engagement undertaken by ARTC to inform the Condamine River flood model and the floodplain crossing design. This included more than 50 one-on-one and small group meetings with landowners, as well as discussions at broad-scale community engagement events, to capture community knowledge about flood levels to inform the development of hydrologic and hydraulic models and provide validation of the models and to consider in the development of the reference design. In addition, 50 historic flood markers on private property were surveyed. In October 2018, the SDDCCC appointed independent advisor, Dr John Macintosh from Water Solutions Pty Ltd to carry out an independent review of the Condamine River floodplain hydrology model. ARTC financially supported this work, and provided technical information to Dr Macintosh for his independent review but was otherwise not involved in this process.	Appendix E: Consultation Report Section 5
215a	215a.0006	Private - Brookstead	Flooding	Modelling	Submitter highlights that ARTC representatives supplied misinformation to the Senate committee, demonstrating a lack of consultation within ARTC from the ground up as well as its dismissal of documentary flood evidence and concerns about the flood model convey to them by affected landholders.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 7.6 Section 8.6
215a	215a.0007	Private - Brookstead	Flooding	Modelling	Local floodplain residents have been attempting to work with ARTC for over three years around the accuracy of the flood model and the height and extent of water in the 2010 flood event. Additionally, request for further detail around the flood model has not been forthcoming to address concerns. The local floodplain residents have been continually assured that the flood model is 'fit for purpose' however the residents are still very uncertain about its accuracy, validity and ability to predict future events. There has been little communication about modelled results on properties and increased flood impacts due to the IR rail design.	Draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJC, as the engineers for ARTC.	Operational flood impacts in the Condamine River floodplain have been described in Section 14.8.1 of the revised draft EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. The flood modelling methodology that has been followed is consistent with Australian guidelines and best practice, and outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practice; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Community and stakeholder consultation focused on flooding has been undertaken at key milestones since the early design development stages, in alignment with ARTC's Flood Study Engagement Framework (ARTC, 2020c). Community consultation was completed in the early stages of the Project through 2018 to 2020. Further consultation with potentially impacted landowners, accounting for revised impacts, was undertaken in October 2022, prior to the second public release of the EIS for consultation. This consultation process is documented in Section 14.5 of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.5 Section 14.8.1 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.5.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
215a	215a.0009	Private - Brookstead	Stakeholder Engagement		<ul style="list-style-type: none"> Submitter highlights that as stakeholder engagement by ARTC has failed in the past, there is extreme concern that the EIS document states that there will be further model refinements and consultation with landholders outside of the EIS process. Submitter highlights that their past experience with ARTC having concerns ignored, records and local knowledge discounted. Submitter highlights that ARTC has no credibility or trust within the community of the Condamine floodplain as they have not engaged with stakeholders in a consultative and collaborative manner in the past. 	<ul style="list-style-type: none"> The draft EIS document be rejected for the Condamine flood plain model, until the independent panel of experts have completed the model review. Any further development and consultation regarding the flood model and flooding impacts be undertaken by an independent panel and not be undertaken by ARTC or FFJV, as the engineers for ARTC. 	<p>ARTC will continue to consult with impacted landowners in regard to the results of local catchment modelling through finalisation of the EIS and development of the detailed design. The purpose of this consultation will be to ensure that impacts to property-scale water balance features, such as irrigation channels and dams, are appropriately considered in the EIS and Project design. Feedback from this consultation will be used to update flood modelling for the Project, if appropriate to do so. Outcomes of this consultation and revised local catchment modelling will be incorporated into the final EIS.</p> <p>The flood modelling conducted for the Project was reviewed by the Independent International Expert Panel for Flood Studies, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice. Community safety and the potential impact of Inland Rail on flood behaviour are key concerns of stakeholders along the Inland Rail alignment and the Expert Flood Panel's assessments will assure communities that ARTC flood modelling follows best practice design of waterway structures in a floodplain environment. As part of additional assessment and studies conducted for the revised draft EIS, ARTC assessed all local catchments against the new Flood Impact Objectives (FIOs), which determine the acceptable parameters within which the Project can change or increase the existing flood conditions, including afflux, time of inundation, velocity, hazard and flow directions. In October 2022, ARTC undertook consultation with all landowners that were shown to have the highest exceedances to the FIOs, in order to discuss these potential impacts and allow ARTC to develop mitigations specific to each area or property.</p> <p>As per ARTC's flood model engagement framework, ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures. Property specific impacts were identified during the consultation sessions in 2022, with the potentially impacted landholders (e.g. access, property specific observations and constraints) and the results recorded for incorporation when mitigations are applied in detailed design along with FIO application.</p> <p>ARTC provided technical information to Dr Macintosh for his independent review but was otherwise not involved in this process and is thus unable to comment. ARTC notes that it also cooperated and shared technical information with the Independent Flood Panel and a flooding expert appointed by local landowners.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p>	Appendix E: Consultation Report Section 5
215a	215a.0010	Private - Brookstead	Flooding		Local landholders are extremely concerned about potential dangers to lives, homes, rural infrastructure and prime agricultural land, the unique and highly fertile black cracking clay (vertosol) soil resource and agricultural enterprises due to an unacceptable flood risk imposed by the IR design. Concerns raised with respect to the current design, that it will result in both short-term and long-term impacts that are irreversible, due to changed water flow and velocity resulting from the proposed rail design. These changes directly contravene the mandatory ToR of 6.2 as the EIS does not acknowledge that these flooding impacts are likely to be irreversible. Refer to page 18 for further details about flooding impact concerns.	The Condamine Main Branch Bridge be extended 400 m to the South to join the Condamine South Branch Bridge The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage to concentrated water flow through culverts in this area. The submitter requests a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1.</p> <p>The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for water flow velocities. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the detailed design stage of the Project.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 4.2 Sections 5 - 17
215a	215a.0011	Private - Brookstead	Flooding		Submitter highlights that the inundation maps from Appendix Q2 at this location show unacceptable increased heights from minor to major flood events around the proposed rail structure. Refer to page 19 of submission for more detail. The impact of the rail design from Millmerran-Leyburn road to the Condamine River for more extreme events results in alarming increases in flood height of up to 0.5 m and, the submitter states that this flood impact is totally unacceptable. The draft EIS does not address alternative rail design that may mitigate these flood impacts, and this violates ToR 11.68, 11.69, 11.142 as it ignores avoidance of the potential risks to people and property that may be associated with the Project from flooding. Submitter disagrees with the assumptions made in Chapter 12 (P 12-166) of the draft EIS that the change in peak water levels due to design are acceptable. From this statement the submitter states that it is obvious that the impacts of the rail design result in unacceptable changes that violate the flood-impact objectives, and that this failure to meet design objectives is happening at critical flood receptors, as well as across areas of agricultural land. Submitter highlights a second major concern that the series of culverts (and bridge pylons) will increase the flow volumes and water velocity when water is channelled under and around these structures, increasing the erosion risk and causing long-term and irreversible damage to the farming system and soils (see ToR 6.2). Submitter highlights that long-term and irreversible environment impacts associated with this obstruction to the natural water flow in flood events is unacceptable. The current design must be further modified to remove the obstruction and inadequate drainage resulting from the use of culverts in the design.	Nil.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.9 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.5.1 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14.21a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities).</p> <p>Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel (Section 22.3.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk.</p> <p>An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design (the updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design.</p> <p>Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Scour and erosion protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the detailed design stage, when detailed site-specific data is available.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 4.8 Table 14-4 Figure 14.20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 7.5.3 Section 22.3 Appendix B
215a	215a.0012	Private - Brookstead	Flooding	Erosion	Submitter raises concern regarding increased risk of Soil Erosion with irreparable and irreversible impacts. Local landholders have tried to collaborate with ARTC and FFJV on numerous occasions to discuss the consequences of erosion both adjacent to and downstream from the proposed rail design, due to increased velocity by impeding water flow across an 18 km floodplain to a cross-sectional area of 7.5 km of bridging and culverts, under an elevated wall of up to 3 m high. Refer to pages 20-22 for further information.	The Condamine Main Branch Bridge be extended 400 m to the South to join the Condamine South Branch Bridge The Condamine South Branch Bridge be extended to Millmerran-Leyburn Road to ensure no erosion damage to concentrated water flow through culverts in this area. The submitter requests a bridge from the Millmerran-Leyburn Road to the Condamine River, with no sections of culverts in the drainage design in this area.	<p>Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable.</p> <p>Flood impacts associated with the Condamine River floodplain have been reviewed as part of the revised draft EIS which incorporates updates to the Condamine River hydraulic model based on feedback and comments from the Expert Flood Panel. Impacts have been described in Section 14.8 of the EIS Chapter 14: Flooding and Geomorphology and Sections 7.5.3 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. As per standard industry guidelines, the impact of the Inland Rail Project on the existing flood regime was quantified and compared against Flood Impact Objectives for the 1% AEP (as discussed in Section 14.6.3 of Chapter 14: Flooding and Geomorphology). Residual flood impacts that exceed the FIO limits are reported in the draft EIS for further consideration by landowners and the Coordinator-General's office.</p> <p>The Inland Rail Project has been designed to maintain existing water flow paths by incorporating sufficiently sized cross drainage structures (i.e. bridges and culverts). The Condamine Floodplain crossing revised Reference Design aims to maintain existing flood levels and velocities. Due to the significant number and lengths of bridges and culverts allowed for in the design to maintain the existing flow of flood water, there are only minor changes in velocities within the floodplain, as indicated by Figure 14-20a-e of Chapter 14: Flooding and Geomorphology (1% AEP change in peak velocities).</p> <p>Scour protection requirements for culverts during the revised Reference Design were calculated based on the velocities predicted from the hydraulic modelling. Any potential change in flood conditions (including flood depth, velocity, duration, and hazard) is carefully managed through application of the Project FIOs, as endorsed by the Independent International Expert Flood Panel (Section 22.3.1 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures, including measures focused on mitigating scour and erosion risk.</p> <p>An impact assessment was undertaken against the FIOs using the Existing Case and Development Case hydraulic modelling results to define velocity exceedances on properties external to the Inland Rail permanent Project footprint, based on the revised Reference Design (the updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1). A representative and conservative average bare soil ETV value of 0.5 m/s was adopted for the purposes of this impact assessment. In addition to initial scour protection requirements identified during the revised Reference Design, areas immediately downstream of culvert outlets that may experience FIO velocity exceedances were also identified, and additional scour protection allowed for within the revised Reference Design.</p> <p>Scour protection requirements are reported in Appendix B of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.</p> <p>Scour and erosion protection measures will be reviewed and confirmed during detailed design, when detailed soil mapping becomes available, and in light of specialist Geotechnical and Soil Conservation advice provided during the detailed design stage, when detailed site-specific data is available.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 4.8 Table 14-4 Figure 14-20a-e Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 4.2 Section 7.5.3 Section 22.3 Appendix B
215a	215a.0013	Private - Brookstead	Flooding		The submitter raises concerns with the flood impact objectives and disputes EIS claims around rail design. The Submitter questions the flood impact objectives and proposes that it is not acceptable for an increase of 200 to 400 mm over agricultural cropping land due to rail design. Refer to pages 21-22 of submission for further details.	Nil.	<p>Updated Flood Impact Objectives (FIO) have been agreed with the Independent International Expert Flood Panel, including targets for land, with further FIO requirements that relate to land usage, impacted area, etc. The updated FIOs are summarised in Section 4.2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 and Section 14.6.3 (Table 14-4) of Chapter 14: Flooding and Geomorphology of the revised draft EIS. As the FIOs have been determined in association with the Expert Flood Panel, additional consultation with TMR/LGAs is required to discuss road impacts, agree the approach for each FIO exceedance and identify appropriate mitigation measures.</p> <p>The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and State guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations.</p> <p>Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology.</p> <p>As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.</p> <p>Further design refinement, mitigation, and consultation will continue through the detailed design stage of the Project.</p>	Chapter 14: Flooding and Geomorphology Section 14.6.3 Section 14.11 Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 4.2 Sections 5 - 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
215a	215a.0014	Private - Brookstead	Flooding		The submitter highlights that the work of the Independent Panel of Expert for flood studies directly relates to the draft EIS, specifically the Condamine River floodplain Section of the proposed B-G route. Therefore, the submitter states the CG should invite ARTC to withdraw the draft EIS, ensuring the Panels advice and best practice for design of waterway structures in a floodplain environment is incorporated into the draft EIS for the CG and stakeholders to consider and comment. The submitter requests the CG to commit to awaiting the release of the Panels advice before making a determination on the draft EIS, and prior to doing so invite stakeholders to comment on the Panels findings. The submitter further requests that the CG insist that the flood impact objectives listed in Table 12.8 be changed as per indication in point 1, on page 23 of the submission. The submitter further requests that the CG review the flood impact objectives in Table 12.8 and insist no change as per indication in point 2, on page 23 of the submission. The submitter proposes that no change is acceptable under sound environmental management and in relation to ToR 6.2, 11.69, 11.142 (a) (ii)The submitter requests that the flood impact objectives must include a requirement to adhere to best management practices for agricultural farming systems and soil conservation on the Condamine flood plain. Refer to further detail provided on page 24 of submission. The submitter requests that the CG reject the application of flood model outputs presented in the EIS as unacceptable. Refer to further detail provide on page 24 of submission.	Nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. The Expert Flood Panel discussed within their Draft Report that some consideration should be given to reviewing the currently adopted FIOs to be more consistent with those adopted along the Narrabri to North Star alignment. Subsequently, ARTC has undertaken a review of the current FIOs, in consultation with the Expert Flood Panel, to consider the Quantitative Design Limits (QDLs) adopted on the NSW portions of Inland Rail, for inclusion in the revised draft EIS. ARTC has incorporated the revised quantitative Flood Impact Objectives (FIOs) developed in consultation with Expert Flood Panel, into the revised draft EIS impact assessment. The FIOs have been applied to Flood Sensitive Receptors, State-Controlled Roads, Local Public Roads, Existing Rail Infrastructure and Private Property. Flood modelling results were assessed and where FIO exceedances above the FIO targets are recorded, summary tables have been provided in the 'Flood Impact Objective outcome' Section of each catchment Section Appendix T1: Hydrology and Flooding Technical Report - Volume 1 (Sections 5 to 17). Justification and mitigation measures have been provided against each FIO exceedance within the summary tables provided. A summary of FIO exceedances is provided in Section 14.11 of Chapter 14: Flooding and Geomorphology. As per ARTC's Mitigation Framework ARTC will continue to work with affected landowners and asset owners where Flood Impact Objectives cannot be met (or are otherwise justified) to agree appropriate mitigation measures.	Chapter 14: Flooding and Geomorphology Section 14.11 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 5 - 17
215a	215a.0015	Private - Brookstead	Flooding	Modelling	The submitter raises concerns with respect to the flood modelling and climate change impacts, stating that the rail design fails to meet flood impact objectives for seasonal variations and the likely impact of climate change into the near future, where these extreme events will be of greater intensity and occur at more frequent intervals. The submitter highlights that whilst the EIS addresses the flood immunity of the current rail design, it makes no consideration of the impacts on agricultural land, or detailed assessment of sensitive flood receptors under this climate change scenario and this is a failure to meet the mandatory requirements of ToR 6.2 and 6.3, as well as ToR 11.48 and 11.54.	Nil.	The flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. Climate change and the selected Representative Concentration Pathway are discussed throughout Chapter 14: Flooding and Geomorphology and Sections 5 to 17 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS (within the climate change assessment of each floodplain section). For the avoidance of doubt the RCP 6.5 (2090 horizon) climate change scenario has been adopted for the Project.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 5 - 17
215a	215a.0016	Private - Brookstead	Flooding	Modelling	Submitter states that the draft EIS fails to address uncertainty in the hydrologic and hydraulic models presented, and that results are presented in a deterministic way. Submitter states that given the complex nature of the Condamine flood plain system and the associated difficulties in flood modelling, it is imperative that a full analysis of uncertainty surrounding the predicted peak heights, flow velocities and inundation times are assessed. The submitter highlights that these omissions in the current draft of the EIS document violate the mandatory requirements of ToR 6.3.	Draft EIS submitted by ARTC should be rejected on the grounds that: It does not comply with the Terms of Reference set by the Coordinator-General on 16 November 2018. The draft EIS is incomplete due to the omission of an assessment of uncertainty surrounding the flood model outputs including predictions of peak height, flow velocity and inundation time for flood events The incomplete nature of the draft EIS as indicated in Table 23.5. The flood impact on the Condamine floodplain cannot be determined until the details of the Project footprint, level crossing design, vertical alignment of the railway, bridge structure design, and fencing strategy have been completed. As with all of our prior interactions with ARTC, the detail is scant and is not yet available.	Flood impacts have been quantified through flood modelling, and assessed in accordance with the ToR and the Flood Impact Objectives (FIOs) (refer to Table 14-4 of Chapter 14: Flooding and Geomorphology of the revised draft EIS). During the Reference Design development process ARTC has considered community feedback on design proposals by making design modifications (e.g. longer bridges, more culverts etc.) to minimise flood impacts as far as practicable. The flood modelling methodology that has been followed is consistent with Australian guidelines and industry standard practice, and is outlined in Section 2 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS. In addition, the flood modelling conducted for the Project has been reviewed by the Independent International Expert Flood Panel, appointed by the Australian Government to provide assurance to the public that the flood models and Reference Design developed by ARTC meet national guidelines and industry best practice as outlined in Section 1.4 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1. The Queensland and Australian governments have accepted the Expert Flood Panel's final report findings that state the flood models and reference designs developed by ARTC accord with the relevant national and state guidelines and industry best practices; adequately identify and mitigate flood risks; and are fit-for-purpose to be taken forward as the basis for the development of detailed designs subject to ARTC implementing the Panel's recommendations. ARTC has actioned Expert Flood Panel recommendations by addressing critical matters prior to finalising the revised draft EIS to further strengthen the flood models for detailed design. Within the Condamine River and Back Creek hydrologic and hydraulic models, any outstanding modelling issues raised by the Expert Flood Panel, and agreed to be addressed in detailed design, have been identified in Section 7.6 and 8.6 of Appendix T1: Hydrology and Flooding Technical Report - Volume 1 of the revised draft EIS.	Chapter 14: Flooding and Geomorphology Table 14-4 Appendix T1: Hydrology and Flooding Technical Report - Volume 1 Section 1.4 Section 2 Section 7.6 Section 8.6
216	216.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines. Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors. Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A
216	216.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations. The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors. The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations). The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to: <ul style="list-style-type: none">Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks.Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways.Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning.Confirm all relevant school bus services to enable consultation with the operators.Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will: <ul style="list-style-type: none">Commence implementation of management measures relating to schools as agreed during the detailed design stage.Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks.Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
216a	216a.0001	Private	Flora and Fauna	Koala	Lack of appropriate ecological survey for Koala habitation. The submitter is from the Pittsworth Landcare Group who are dedicated to the protection of Koalas. The ARTC data was only sourced from desktop studies and purchased data from the like of the Australia Koala Foundation. They mention the Australian Koala Foundation as a source, but however it is not referenced in the EIS. There is no evidence of any ground proofing of habitat. The relevant fauna assessment (Appendix J) suggests that scats and Koala scratches were surveyed at selected locations but these results are not reported in the document.	The draft EIS submitted by the ARTC should be rejected on the grounds that it does not comply with the Terms of reference as set by the Coordinator general on 16 November 2018. The draft EIS is incomplete in this form.	Appendix O: Matters of National Environmental Significance of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements. Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the Draft Koala Management Plan (DKMP). A Koala genetic study has been undertaken to understand the Koala population genetics along the Narramine to Acacia Ridge/Bromelton sections of the Inland Rail Project. As per results of this study (ERM, 2024) Koalas within the Project footprint belong to a single population that extends throughout south-east Queensland. Ecological monitoring which will be conducted during operation of the Project will include ongoing collection and analysis of Koala DNA samples from adjacent and broader areas from the Project and an analysis of gene flow at five-yearly intervals for 20 years. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
216a	216a.0002	Private	Flora and Fauna	Koala	The submitter informs that there is significant Koala habitat from Yarranlea to Athol. DNA sampling has been taken and the possibility of a new gene pool exists. Therefore this area must never be touched. The Koala activity in this location is very high which leads to the assumption of a breeding area. The linear nature of the Inland rail will be a barrier and likely to diminish Koala dispersal/genetic flow east and west of the rail line. ARTC has failed to identify the area where Koalas are likely to cross and to provide feasible structures for safe passage.		<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS: Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes, Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report.</p> <p>Appendix P: Fauna Connectivity Strategy identify the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Ingelwood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised draft Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have been prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and DTMR's Fauna Sensitive Road Design: Volume 1 and 2 (DTMR 2000 and 2010, respectively). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised Appendix P: Fauna Connectivity Strategy.</p> <p>In addition, ARTC has commenced two key research initiatives relating the Koala (<i>Phascolarctos cinereus</i>) to better understand populations, potential impacts and to develop targeted mitigation and management measures. Regarding the proposed solution, ARTC has partnered with ERM, a multinational consultancy firm, to undertake a study Koala genetics that focusses on population genetics and dietary analysis for Koalas across eight of the Inland Rail Projects. The purpose of this study is to:</p> <ul style="list-style-type: none"> ➤ Increase baseline data on Koala population resilience and restoration requirements. ➤ Informs Koala conservation controls as required in conditions of approval. ➤ Informs fauna connectivity plans. ➤ Informs Koala offset management decisions. ➤ Contribute to Infrastructure Sustainability Council credits. <p>The expected completion date for these studies is June 2023.</p>	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix P: Fauna Connectivity Strategy
218	218.0011	Local Government	Noise and Vibration		Draft EIS does not address the impact of noise and vibration	Landscape, noise and vibration	<p>The draft revised EIS has been updated to address potential impacts from noise and vibration at sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The construction noise impacts provided in the EIS are conservative predictions of unmitigated worst-case 15-minute construction noise levels based on a preliminary construction methodology (Chapter 16: Noise and Vibration, Section 16.6). As specific hours of construction for each construction activity is not yet known, potential noise impacts have been assessed against appropriate CoP Vol 2 noise criteria for all hours. The night and evening criteria are more stringent than the day criteria in order to consider potential sleep disturbance impacts. Reasonable and practicable measures to minimise construction noise impacts are to be nominated and implemented based on community consultation and a detailed assessment of construction noise impacts during the detailed design stage of the Project. Mitigation measures to be considered have been included in the EIS (Chapter 16: Noise and Vibration, Section 16.10). Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4.22, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	Chapter 10: Landscape and Visual Impact Assessment Section 10.5 Section 10.5.4.22 Chapter 16: Noise and Vibration Section 16.6 Section 16.10 Appendix K: Landscape and Visual Impact Assessment Section 11.2 Table 95 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6.2
218	218.0063a	Local Government	Social Impact Assessment		Social impacts: Table 4.3 does not include detail relating to social impacts from the proposed Project.	Table 4.3 of the draft EIS requires update to include criteria for assessing social impacts.	Section 9 of revised draft EIS Appendix X: Social Impact Assessment provides the criteria for assessing social impacts.	Appendix X: Social Impact Assessment Section 9
218	218.0087	Local Government	Noise and Vibration		<p>Land objectives: The Land objectives provided in the OCGs TOR states that the proposed Project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The draft EIS fails to provide detailed information around potential noise barriers. It is acknowledged in various reports that there will be significant noise amenity impact along the rail alignment, particularly at Brookstead and Pittsworth, however there is no clear indication regarding how that impact will be mitigated. It appears that the best choice is a noise barrier, which will severely impact the visual amenity of these two settlements.</p> <p>There is also concern surrounding the application of CPTED principles, which has been mentioned in the draft EIS. Parts of the construction of the alignment, final product and mitigation measures has high potential to create undesirable places and spaces in which the community wellbeing and social sustainability objectives expressed in the TOR may be negatively impacted or not achieved. Information is missing from the draft EIS around these objectives in direct relation to the mitigation measures.</p>	<p>The proposed landscape, visual, noise and vibration impacts are not appropriately addressed or assessed by the draft EIS. The draft EIS therefore fails to achieve the requirements under Land in the TOR and requires update to meet the OCGs TOR.</p> <p>TRC request that the OCG impose the following condition:</p> <p>The proponent is required to appropriately address landscape, visual, noise and vibration impacts directly including designing, constructing and operating the proposed Project in a way which:</p> <ol style="list-style-type: none"> Improves environmental outcomes; and Contributes to community wellbeing; and Contributes to social, economic and environmental sustainability; and Mitigates impacts to the natural landscape and visual amenity. 	<p>The revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (Section 17 of Appendix: W Noise and Vibration Assessment - Railway operations).</p> <p>As part of the visual assessment, 29 representative viewpoints have been selected and assessed for both construction works and operations stages of the Project (Section 1.2, Appendix K: Landscape and Visual Impact Assessment). This assessment includes visualisations of concept noise barriers and related mitigation measures and related mitigation measures at each location. During construction, the greatest visual impact identified was up to a Moderate level of effect, relating to nine viewpoints.</p> <p>As outlined in Section 6.2.2, Table 21 of Appendix K: Landscape and Visual Impact Assessment, the potential need for noise barriers has been identified and a concept developed based on operational noise modelling at the viewpoints (Appendix W: Noise and Vibration Assessment - Railway operations). The provision of noise barriers and other potential feasible and practicable mitigation options to reduce and control noise levels and noise related impacts at sensitive land uses will be considered during the detailed design stage, in particular in the vicinity of Yelarbon, Brookstead and Pittsworth. Therefore, the potential visual impact of noise barriers in these locations has been considered in this assessment.</p> <p>Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment details mitigation measures for the impact of noise barriers on landscape and visual impact amenity include minimising the use of noise barriers to the greatest extent possible. Where these are or may be required in the future, particularly in towns and urban areas, ensure they are designed sympathetically to their surroundings and consider CPTED and graffiti issues, where appropriate considering the inclusion of community artwork and urban design and/or transparent panelling. This strategy should be applied to any noise barriers required within Yelarbon, Brookstead or Pittsworth Table 95, Appendix K: Landscape and Visual Impact Assessment.</p> <p>Design of noise barriers including confirmation of length and materials is subject to development at detailed design stage. Landscape design will enhance or complement the local context to integrate new structures, fencing and noise barriers Table 95, Appendix K: Landscape and Visual Impact Assessment.</p>	Appendix K: Landscape and Visual Impact Assessment Section 1.2 Section 6.2.2 Section 11.2 Table 21 Table 95 Appendix W: Noise and Vibration Assessment - Railway operations Section 17
218	218.0152	Local Government	Noise and Vibration		Sensitive receptors: The draft EIS lists various sensitive receptors considered in the assessment according to applicable legislation and guidelines. Intensive animal production (identified in Section 15.6.5.2) is not noted as a sensitive receptor. There is the potential that ongoing operational noise and vibration could detrimentally alter animal behaviour and productivity, which could impact viability of significant investment in animals and infrastructure.	The draft EIS requires update to include consideration of noise and vibration on productivity of intensive animal production facilities within a determined distance from the line to allow for requirement of appropriate mitigation measures.	<p>The railway noise assessment has been conducted in accordance with DTMR's Interim Guideline (2019), to provide a revised impact assessment.</p> <p>Following the assessment of impacts and stakeholder engagement on the base options of the alignment, a design change was adopted and incorporated in the Project revised reference design involving a horizontal rail alignment at Millmerran to reduce impacts to intensive animal and agricultural operations, Class A, Class B agricultural areas and eliminate two active level crossings (refer to Chapter 2: Project Rationale, Section 2.10). The realignment also creates greater separation between the main animal operations and infrastructure, thus reducing associated impacts including noise and vibration. The Millmerran realignment was also informed by feedback provided by a DA Halls in the form of a supplied report. The relevant noise and vibration codes of practice, standards and guidelines that apply to Inland Rail do not provide criteria, limits, or procedures to assess noise and vibration impacts to intensive animal operations.</p> <p>Noise and vibration impacts to intensive livestock operations have been assessed in Chapter 16: Noise and Vibration. ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. An assessment of potential impacts to intensive animal operations has been conducted based on a criterion of 90 dBA Lmax. The findings and recommendations of the assessment are reported in Section 16.9 of Chapter 16: Noise and Vibration of the revised draft EIS.</p>	Chapter 2: Project Rationale Chapter 16: Noise and Vibration Section 16.9
218	218.0153	Local Government	Noise and Vibration		Noise from construction: construction noise is calculated to a receiver height of 4.6 m while operational noise is calculated to a receiver height of 1.8 m. The operational Railway Noise and Vibration Technical Report (Appendix T) then states that receiver points are at 2.4 m. The outcomes are unlikely to change significantly, or at all, between the different receiver heights, however the inconsistency was noted.	The draft EIS requires update to ensure all modelled receivers should be clear and consistent between documents and scenarios.	<p>Modelling of construction noise and operational railway noise has been undertaken using different methodologies and different, but appropriate, assumptions. Receiver heights have been modelled at 0.5 m below eave height consistent with DTMR recommendations. For a small portion of sensitive receptors (isolated rural dwellings) with no eave heights available, receptor heights have been determined to be 1.8 m above the terrain level for ground floor, and 4.6 m above terrain level for first floor (if applicable) (Section 4.3, Appendix V - Construction Noise and Vibration and operational Road Traffic Technical Report, and Section 6.1, Appendix W - Operational Railway Noise and Vibration Technical Report).</p> <p>The Operational noise and vibration modelling has been undertaken in accordance with the Department of Main Roads' Interim Guideline - Operational Railway Noise and Vibration (March 2019). The updated modelling is presented in the draft revised EIS in Chapter 16 - Noise and Vibration, Appendix V - construction Noise and Vibration and operational Road Traffic Technical Report, and Appendix W - Operational Railway Noise and Vibration Technical Report. The updated modelling has operational noise modelling incorporated the most up to date building height data along the alignment.</p>	Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 4.3 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0154	Local Government	Noise and Vibration		<p>Noise at residential dwellings: Section 14.6.1 states the lower limits are generally considered to be just perceptible while referring to a noise limit of 45 dBA Leq,15 min in areas with night-time background levels below 30 dBA. The DES noise measurement manual (2020) suggests that changes in noise levels above 3 dBA are perceptible and that a change of 10 dBA is perceived as twice as loud. A change of 15 dBA will be perceptible and certainly have potential to cause nuisance at sensitive receptors in quiet rural areas.</p> <p>The statement that lower limits will be just perceptible is misleading and incorrect, and it dismisses the likelihood that residents in very quiet areas will be disturbed by levels of noise that may be considered low in other settings.</p>	<p>Although the criteria appear to be correct, the report should not make a baseless and misleading claim regarding the sensitivity of a community. A truthful sentence, for example, may be the lower limit of 45dBA Leq,15 min during non-standard hours does not ensure that construction noise will be inaudible at all sensitive receptors, and some disturbance from noise at the lower limit remains possible, especially in very quiet locales.</p>	<p>The commentary regarding construction noise criteria in Chapter 16: Noise and Vibration of the revised draft EIS and report will have since been revised to align with the CoP Vol 2. This has been reflected in the updated EIS Chapter: 16 Noise and Vibration, Section 16.6, which discusses the findings of the revised construction noise and vibration assessment. Further details of the assessment are also presented in Sections 3 to 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p>	<p>Chapter 16: Noise and Vibration Section 16.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3 Section 4 Section 5 Section 6</p>
218	218.0155	Local Government	Noise and Vibration		<p>Noise and vibration: The requirement of TOR 11.120 is to describe the characteristics of the noise and vibration sources that would be emitted when carrying out the activity describe noise and vibration emissions (including fugitive sources) that may occur during construction, commissioning and operation.</p> <p>Given the geology of the area, it is surprising that an assessment of the vibration from hydraulic hammers has not been included in the assessment of impacts. Should the proponent wish to use hydraulic hammers during construction activities, an assessment would be required in order to meet TOR 11.120.</p> <p>TOR 11.124 requires the draft EIS to describe how the proposed Project would be managed to be consistent with best practice environmental management for the activity. The following information provided in the draft EIS is not considered to be consistent with best practice for environmental management:</p> <ul style="list-style-type: none"> Vibration criteria provided in Table 14.30 are expressed as Limits rather than Guideline Targets. Many large-scale Projects adopt the latter, which potentially allows the opportunity for the construction contractor to motivate for alternative, possibly elevated, criteria, in order to develop the proposed Project at a reduced cost and/or a quicker schedule. Guideline targets may sometimes be considered advantageous for construction contractors as they allow opportunities for alternative construction techniques. However, Guideline Targets are less rigid in terms of clearly identifying permissible values and therefore offer less certainty for affected property owners. Additionally, the Limits approach offers increased assurance of potential Project impacts for TRC and affected property owners. <p>The proposed vibration limits for blasting are taken largely from the ANZECC Guidelines rather than AS AS2187.2, which is less restrictive where blasting in a particular area requires fewer blasts. While the draft EIS indicates that for the purposes of the proposed Project, the AS2187.2 criteria have been adopted, the conditions do not include reference to the type of blasting operations and therefore reflect the ANZECC Guidelines, and not AS2187.2. Compliance with the more stringent ANZECC conditions might restrict the scale of blasting and necessitate that the construction contractor adopt hammering to remove rock (considered more intrusive to sensitive receptors) in areas where blasting might have been preferred.</p> <ul style="list-style-type: none"> The calculation of the explosive weights for complying with overpressure criteria for blasting of the cuttings provided in Table 14.31 is incorrect and may unnecessarily eliminate drilling and blasting as a feasible excavation method. The calculations provided in Table 14.31 that are based upon generic relationships provide reasonable estimates for vibration compliance however conclude that blasting with 200 m of a receptor will require specialised blast design to comply with the overpressure criteria. The Table further concludes that blasting at a separation distance of 200 - 800 m from a property will necessitate explosive weights varying between < 1 and < 5 kilograms (respectively). These calculations are erroneous and inconsistent with normal construction blast practices. Best practice would include a controlled trial blast prior to the larger scale production blasts. Although this is not a specific performance criterion that a small trial blast is undertaken in each cutting to confirm the vibration predictions, it is expected that the contractor would require a trial blast as part of their procedures. 	<p>The draft EIS should be updated to:</p> <ul style="list-style-type: none"> Update the vibration assessment to include vibration from hydraulic hammers. Update Table 14.30 to reflect Guideline Targets rather than Limits. Correct the data in Table 14.31 to ensure that blasting as a method of excavation is not eliminated based on incorrect calculations. Improve the overall assessment of impacts from vibration by estimating the number of affected days at various locations along the proposed Project alignment, rather than for only the number of properties potentially affected. Dividing the proposed Project into areas and highlighting the impacts in each cutting would also have allowed for a more considered assessment and provide for easy understanding by the reader. Include an indication of the duration of vibration impacts from the proposed Project. This information would be considered useful for persons potentially affected by the proposed Project when determining how they may be affected by vibration. Given that the construction contractor may vary from the methods identified, the size of the equipment, or scale and timing of the works, it is accepted that determining the duration of any impact could be difficult. It would however be information that the contractor could include in their construction Environmental Management Plan, and an indication of what may be expected should be provided in the draft EIS. The predicted vibration levels from the mechanical methods are limited to vibratory rollers without mention of different size hydraulic hammers (which are fully expected to be used at different areas of the proposed Project). The Vibration Assessment of the draft EIS should include consideration of all activities which produce vibration. Best practice would include a controlled trial blast prior to the larger scale production blasts. 	<p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project will be undertaken. Mitigation have been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area. The worst-case construction vibration activities modelled as part of the EIS assessment are vibratory compaction and piling (percussive and vibratory).</p> <p>The revised draft EIS construction vibration assessment now includes an assessment of hydraulic hammers and is discussed under Section 6.1.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The assessment of airblast overpressures and ground vibration related to blasting is discussed in Section 4.3.3 and Section 6.1.3 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Vibration criteria are described in the document from which they have been adopted - the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration (CoP Vol 2)- as 'limits' (Section 3.3.1 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). This terminology is therefore considered appropriate. The construction contractor is to implement the construction Noise and Vibration Management Plan, to be developed during detailed design and informed by a detailed construction noise and vibration assessment, rather than the revised draft EIS report.</p> <p>The EIS assessment has adopted human comfort blasting criteria from the CoP Vol 2, and building damage blasting criteria from DIN4150-3 and BS 7385, on the recommendation of the CoP Vol 2.</p> <p>With regards to the comment regarding incorrect calculations on Table 14.31, the construction blasting assessment has been updated and is presented in Section 16.6.3 of Chapter 16: Noise and Vibration. It is unclear from the comment in what way the calculations may be incorrect, however the revised assessment presents the details of the blasting assessment for the control of airblast and ground vibration impacts. These calculations in the assessment have been based on preliminary geotechnical assumptions, preliminary construction methodology, and conservative, worst-case modelling assumptions. Further details of the assessment can be found in Section 6.1.3 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic of the revised draft EIS.</p>	<p>Chapter 16: Noise and Vibration Section 16.6.3 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 3.3.1 Section 4.3.3 Section 6.1.2 Section 6.1.3</p>
218	218.0157	Local Government	Noise and Vibration		<p>Assessment of sleep disturbance 5: Section 14.7.4.1 references the WHO Night Noise Guidelines for Europe (2009) and accepts that an external level of $L_{max} 49$ dB(A) is the trigger for sleep disturbance, assuming opened windows. The Section goes on to say that 'based on noise modelling, the noise levels from rollingstock could be above $L_{max} 49$ dB(A) within approximately 1 km of the rail corridor.'</p> <p>Noise modelling in the draft EIS demonstrates that levels much higher than 49 dBA L_{max} are predicted to be experienced at distances greater than 1 km. For example, receiver 255402 appears to be approximately 1.6 km from the track and is predicted to experience 73 dBA L_{max}.</p> <p>The potential for sleep disturbance appears to be grossly underestimated and ultimately dismissed. As such the potential acoustic impacts of the Project have not been adequately assessed or mitigated.</p>	<p>Nil.</p>	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.0158	Local Government	Noise and Vibration		<p>Assessment of sleep disturbance 5: Section 14.7.4.1 of the draft EIS states that 'further advice from the WHO acknowledges the establishment of relationships between single event noise indicators, such as L_{max}, and long-term health outcomes remains tentative. Consequently, the WHO guidance has not been applied as criteria or numerical limits on the Project.' The WHO released new guidelines in 2018 which strongly recommend a night time outdoor noise limit of 44 dBA Leq,night. The draft EIS does not reference this newer document, rather the document has adopted trigger levels of 55 dBA Leq,night and 80 dBA L_{max}, both of which appear to have no connection to any credible guidance on the mitigation of sleep disturbance.</p> <p>As it stands, there appear to be several hundred sensitive receptors that fall between predicted night time noise levels of 44 and 55 dB(A) Leq,night. These several hundred dwellings have not triggered mitigation but are above the WHO guidelines for sleep disturbance. The result is that the financial and personal cost of the rail noise impacts are borne by those residents without any form compensation. See the example Figure below, which is Figure 15 from the draft EIS Appendix T, the red box encloses the dwellings that exceed WHO noise guidelines but do not trigger the proponent's mitigation process.</p> <p>The potential for sleep disturbance appears to be grossly underestimated and ultimately dismissed. As such the potential acoustic impacts of the Project have not been adequately assessed or mitigated.</p>	Nil.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
218	218.0159	Local Government	Noise and Vibration		<p>Assessment of sleep disturbance 5: Section 14.7.4.1 goes on to state that the '1 km distance is a guide to where the night-time noise levels may have the potential to result in sleep-disturbance impacts.' As previously discussed, the 1 km distance is a grossly underestimated guide.</p> <p>The Section further states that individuals will respond to noise differently, and just because railway noise can be audible does not mean it will cause disturbance or annoyance impacts.' This sentence is silent on the (perhaps very large) proportion of the population who will be disturbed and annoyed by audible train noise where it has never existed before. These people will complain and for those who experience noise above credible guidelines, their complaints will be justifiable.</p> <p>The potential for sleep disturbance appears to be grossly underestimated and ultimately dismissed. As such the potential acoustic impacts of the Project have not been adequately assessed or mitigated.</p>	Nil.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
218	218.016	Local Government	Noise and Vibration		<p>Assessment of sleep disturbance 5: Section 14.7.4.1 continues with where sensitive residential land uses are proposed to be developed within 1 km of rail freight corridors, it would be expected that residential property, complying to Australian building codes and standards, would achieve facade noise reductions greater than the conservative 7 dBA assumption applied in this assessment.</p> <p>However:</p> <ul style="list-style-type: none"> By relying on the construction of a dwelling to protect the internal noise amenity, the proponent is assuming these dwellings will keep windows closed year-round, and potentially require air-conditioning or mechanical ventilation. In Queensland, new residential developments only have specific design requirements for rail noise when they fall within a Gazetted transport noise corridor, which generally extend no more than 250 m from freight rail corridors. It is estimated that noise levels in excess of the WHO guidelines will be experienced for over 2 km, leaving the balance without any relevant codes or standards to ensure their protection. <p>The potential for sleep disturbance appears to be grossly underestimated and ultimately dismissed. As such the potential acoustic impacts of the Project have not been adequately assessed or mitigated.</p>	Nil.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
218	218.0161	Local Government	Noise and Vibration		<p>construction, design, level of attenuation impact on amenity:</p> <p>The Land objectives provided in the OCG's TOR states that the proposed Project should be designed and operated to:</p> <ol style="list-style-type: none"> Improve environmental outcomes; and Contribute to community wellbeing; and Contribute to social, economic and environmental sustainability; and Mitigate impacts to the natural landscape and visual amenity. <p>The draft EIS discusses a number of mitigation measures to minimise noise impacts on the surrounding environment. However, specific details have not been provided for impact on visual amenity, particularly from key locations, including but not limited to noise walls or barriers to be potentially located at Brookstead and Pittsworth.</p> <p>Appendix T identifies the following conceptual noise barrier mitigation:</p> <ul style="list-style-type: none"> Brookstead: 720 m long, 4 m high (in two locations). It was acknowledged in the appendix that the noise barrier would not be sufficient on its own to reduce noise emissions. Pittsworth: 570 m long, up to 4 m high (alongside track) or 3 m barriers directly along Pittsworth Motor Inn and Stanley Street sites. <p>It was identified in Appendix T that none of the proposed noise barriers were successful in reducing noise for all sensitive receptors. The potential for negative impact on the visual amenity of these locations is high, particularly given that the draft EIS identifies a minimum height of 4 m required to achieve noise attenuation.</p> <p>SPP Liveable Communities (3)(a) and (b) require development to be designed to value and nurture local landscape character and the natural environment and maintain or enhance important cultural landscapes and areas of high scenic amenity. These impacts have not been considered in Appendix T.</p> <p>The lasting impacts on visual amenity and landscape have not been considered by the draft EIS in relation to the noise barriers that will most likely be required at Brookstead and Pittsworth.</p>	<p>The proponent has not adequately demonstrated how the impacts to the natural landscape and visual amenity will be mitigated as no clear information has been provided around the noise barriers. This information is crucial to achieving the TOR and ensuring the protection of visual amenity, community wellbeing and the natural landscape.</p>	<p>The revised EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration (2019). The assessment includes a review of noise mitigation, including noise barriers, and clearly identifies all residual exceedances and requirements for additional measures such as at-property acoustic treatments (Section 17 of Appendix: W Noise and Vibration Assessment - Railway operations).</p> <p>As part of the visual assessment, 29 representative viewpoints have been selected and assessed for both construction works and operations stages of the Project (Section 1.2, Appendix K: Landscape and Visual Impact Assessment). This assessment includes visualisations of concept noise barriers and related mitigation measures and related mitigation measures at each location. During construction, the greatest visual impact identified was up to a Moderate level of effect, relating to nine viewpoints.</p> <p>As outlined in Section 6.2.2, Table 21 of Appendix K: Landscape and Visual Impact Assessment, the potential need for noise barriers has been identified and a concept developed based on operational noise modelling at the viewpoints (Appendix W: Noise and Vibration Assessment – Railway Operations). The provision of noise barriers and other potential feasible and practicable mitigation options to reduce and control noise levels and noise related impacts at sensitive land uses will be considered during the detailed design stage, in particular in the vicinity of Yelarbon, Brookstead and Pittsworth. Therefore, the potential visual impact of noise barriers in these locations has been considered in this assessment.</p> <p>Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment details mitigation measures for the impact of noise barriers on landscape and visual impact amenity include minimising the use of noise barriers to the greatest extent possible. Where these are or may be required in the future, particularly in towns and urban areas, ensure they are designed sympathetically to their surroundings and consider CPTED and graffiti issues, where appropriate considering the inclusion of community artwork and urban design and/or transparent panelling. This strategy should be applied to any noise barriers required within Yelarbon, Brookstead or Pittsworth Table 95, Appendix K: Landscape and Visual Impact Assessment.</p> <p>Design of noise barriers including confirmation of length and materials is subject to development at detailed design stage. Landscape design will enhance or complement the local context to integrate new structures, fencing and noise barriers Table 95, Appendix K: Landscape and Visual Impact Assessment.</p>	Appendix K: Landscape and Visual Impact Assessment Section 1.2 Section 6.2 Section 11.2 Table 21 Table 95 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
218	218.017	Local Government	Noise and Vibration		Health and wellbeing, social infrastructure: The draft EIS does not appropriately assess the impact of rail noise on the learning environment at Brookstead Primary School, which is located in close proximity to the proposed alignment (directly across the road).	The draft EIS should be amended to include a commitment to consulting with DESE and the Brookstead school to identify how the proponent will mitigate the significant noise and vibration impacts which will be experienced at the school.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment, including schools.</p> <p>At Brookstead, an assessment of noise has been undertaken for the proposed construction works and future railway operations. The assessment includes detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise and vibration from the construction and operation of the Project and achieve the assessment criteria.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School.</p> <p>The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Chapter 16: Noise and Vibration, Section 16.10, and the associated technical reports Appendix V: Noise and Vibration Assessment: construction and Road Traffic, Section 7, and Appendix W: Noise and Vibration - Railway Operations, Section 17).</p> <p>ARTC has engaged with Department of Education (QLD) and the agreed approach is to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Consultation with potentially affected schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2.3, Queensland Government engagement.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 4.2.3</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
219a	219a.0001	Private	Land Resources		Concern about the need to keep the alignment weed free to protect agricultural practises in the region. Note this is a brief summary of a detailed description of concerns and weed dispersion impacts on agricultural practices.	N/A	<p>ARTC acknowledges the concerns from landowners about the potential spread of weeds during the construction stage of the Project. The revised draft EIS has been updated to provide additional information on the management and mitigation measures that will be implemented to avoid and minimise the spread of weeds during construction.</p> <p>The results and mitigation measures sections of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report outline the weeds identified in the Project footprint during surveying efforts, and how the dispersal of weeds will be managed and mitigated during each stage of the Project, including the development of a Biosecurity Management Plan as part of the Construction Environmental Management Plan that will be implemented prior to construction taking place.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
219a	219a.0002	Private	Land Resources		Concern that cuttings and excavation will create an environment for the natural germination and dispersal of weeds.	Nil.	<p>ARTC acknowledges the concerns from landowners about the potential spread of weeds during the construction stage of the Project. The revised draft EIS has been updated to provide additional information on the management and mitigation measures that will be implemented to avoid and minimise the spread of weeds during construction.</p> <p>The results and mitigation measures sections of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report outline the weeds identified in the Project footprint during surveying efforts and how the dispersal of weeds will be managed and mitigated during each stage of the Project including the development of a Biosecurity Management Plan as part of the Construction Environmental Management Plan that will be implemented prior to construction taking place.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
219a	219a.0003	Private	Land Resources		Rehabilitation and landscape management measures should be included in the EIS	Nil.	A Rehabilitation and Landscaping Management Plan will be developed for the Project. It will establish location-specific objectives, timeframes and responsibilities for rehabilitation, reinstatement and/or stabilisation works. ARTC has also included additional rehabilitation and landscape management and mitigation measures in revised draft EIS Chapter 24: Draft Outline Environmental Management Plan, Section 24.2 and 24.9.	Chapter 24: Draft Outline Environmental Management Plan.
219a	219a.0004	Private	Land Resources		ARTC has not recognised rogue grasses as weeds of concern and have not mentioned how these weeds will be controlled and what the contingent plans will be in the result of initial failure to control them. <ul style="list-style-type: none"> Rogue grasses spread by wind-borne seeds are a serious threat to grazing and cultivation. It is difficult to control rogue grasses because there are no selective grass herbicides that will destroy rogue grasses without also destroying desirable grasses which need to be preserved for stock feed or erosion control. The EIS does not specifically identify who will do what in the Biosecurity Management sub-plan. 	ARTC needs to have definite programmes in place before construction and these specific plans must be detailed - not vague indications of what they intend to do. The EIS should not be considered complete until commitments are defined accurately and include contingency action as well.	<p>ARTC acknowledges the concerns from landowners about the potential spread of weeds during the construction stage of the Project. The revised draft EIS has been updated to provide additional information on the management and mitigation measures that will be implemented to avoid and minimise the spread of weeds during construction.</p> <p>The results and mitigation measures sections of Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report outline the weeds identified in the Project footprint during surveying efforts, and how the dispersal of weeds will be managed and mitigated during each stage of the Project including the development of a Biosecurity Management Plan as part of the Construction Environmental Management Plan that will be implemented prior to construction taking place.</p>	<p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
219b	219b.0001	Private	General Project opinion - negative		The building and operation of this high speed, interstate railway <ul style="list-style-type: none"> with daily train movements predicted to be 19 daily in 2026 and 24 daily by 2040 will have an unprecedented and profound impact on the residents of this town! 	Nil.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community.</p> <p>As noted in Section 2.8 of the Project Rationale (Chapter 2), the alignment around the Pittsworth area was selected for a number of reasons including after extensive investigations. These reasons include that investigations show the location as having both improved technical viability and construction feasibility as well as there being fewer impacts to community, stakeholder, and properties. This resulted in the Pittsworth area being selected for the alignment. Through the environmental impact process, impacts have been avoided wherever possible, reduced, mitigated and managed to the greatest extent possible. ARTC remain committed to continuing to work with the directly impacted landowners as well as the local Pittsworth community to develop solutions that minimises or mitigates impacts of the Project wherever possible.</p>	Chapter 2: Project Rationale Section 2.8
219b	219b.0002	Private	Noise and Vibration	construction groundborne noise	The submitter raised concerns that the three laydown areas within 2 km of Pittsworth will have impacts on social receptors, about the need for additional fill to be trucked in and that people of Pittsworth are 'just going to have to put up with the noise'.	The only mitigation measure that is possible during construction is restriction of working hours.	<p>ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during the construction works stage of the Project. The revised draft EIS has been updated to address potential impacts from construction noise and vibration to sensitive receptors along the Project alignment. Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration (Chapter 16: Noise and Vibration, Section 16.6, and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6.1). Construction noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10, and Appendix V: Noise and Vibration Assessment - Construction and Road Traffic, Section 6.2. The development and implementation of such measures will be subject to further review and assessment by the construction contractor. The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area. The majority of the construction works for the Project will be undertaken during the day as defined in the Project's primary hours of construction and depending on the nature of the works, some activities may need to be undertaken outside of the primary construction hours (refer to Chapter 5: Project Description, Section 5.6.2). Where works are required outside of primary construction hours, for example night works and delivery of materials, these works shall be subject to careful planning and appropriate controls shall be in place, particularly to mitigate impacts associated with noise and vibration. The planning process would include consultation with the local community and stakeholders to inform of the proposed works, any anticipated impacts and the measures implemented to control possible impacts.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.6.2</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 6</p> <p>Section 7</p>
219b	219b.0003	Private	Noise and Vibration	operational rail noise	The submitter raised concern that the elevation of the rail will expose the town to increasing levels of noise and that the route selection has not met the design criteria of co-locating the route with transport corridors or avoiding steep terrain and topographical constraints and has not resulted in tangible measures for noise reduction other than noise barriers.	Nil.	<p>The preferred location for the proposed rail corridor (as presented in the draft revised EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project.</p> <p>The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
219b	219b.0004	Private	Noise and Vibration	operational rail noise	The submitter raised concern that the gradient exceeds the maximum grade standards of 1:100 west of Pittsworth and that this will increase noise levels as trains will need to run at full throttle past Pittsworth to get up the slope.	Nil.	<p>Since the reference design was developed, the rail vertical alignment has been reviewed to utilise more 1:80 grades as part of a value engineering exercise to improve Project outcomes such as road/ rail interfaces and earthworks volumes. Although 1:50 grades for mountainous terrain was referenced in EIS documentation, these are not preferred by Inland Rail and may only be considered under extraordinary circumstances and subject to ARTC engineering review and approval. Chapter 5: Project Description, Section 5.3.3 provides a summary of changes to the reference design since the draft EIS and the basis of design.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E of the revised draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts).</p> <p>The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project.</p> <p>The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 5: Project Description</p> <p>Section 5.3.3</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
219b	219b.0005	Private	Noise and Vibration	operational rail noise	The submitter raised concerns that not all receptors are mapped and that five dwellings near the Gore Highway haven't been considered for noise barriers even though they meet the criteria. (See submission 219b, p3 for more information)	Nil.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial phase of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>The revised draft EIS Chapter 16: Noise and Vibration, Section 16.10, and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17, discuss that the Interim Guideline advises that mitigation measures to control railway noise and vibration should be considered on rail corridor land, commercial corridor land, or future railway land. Consistent with this approach, ARTC shall primarily seek to control noise and vibration at source and through measures implemented within railway lands, for example railway noise barriers.</p> <p>Noise barriers are generally only considered where groups of triggered receptors are apparent. A review of noise barrier options for the Project is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. For isolated receptors, such as single dwellings in rural areas, noise barriers would generally not be considered as the required extent of noise barrier structures would not be reasonable or practicable for single receptors. For three or more receptors on the same side of the track, noise barriers will be considered as a primary noise mitigation option. ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
219b	219b.0006	Private	Noise and Vibration	operational rail noise	The submitter raised concerns that proposed noise barriers may be ineffective and that investigations into the provision and erection of noise barriers is yet to be undertaken.	The EIS should contain design drawings for noise barriers and ARTC should be instructed to properly research this 'overwhelming aspect of social discomfort and distress' before construction commences.	The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors, commercial operations, and businesses along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. These measures include noise barriers and at-property upgrades to existing residences. A review of noise barrier options for the Project is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. Concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges, and specifically note the area in the vicinity of Pittsworth that is identified by this submission. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 22 (Pittsworth-Felton Road near Pittsworth Motor Inn) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4.22, has been updated to include an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/ improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4.22 Appendix K: Landscape and Visual Impact Assessment - Railway Operations Section 11.2 Table 95 Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 10 Section 17 Section 17.4
219b	219b.0007	Private	Landscape and Visual Amenity		The EIS doesn't contain a viewpoint for the north/ northeast of the town and doesn't capture the vegetation and profile of McEwan National Park.	Nil.	Viewpoints 17 (now Viewpoint 22) were selected on the basis of field work investigations and community feedback received regarding potential impacts on Pittsworth. The McEwan Area is a State Forest (i.e. it is not National Park) and does not appear to be promoted for recreation. During initial field work investigations, no views were obtained from the Assembly of God as it is a private landowner. Nearby views from public locations were not included due to the comparatively low number of receptors compared to other parts of Pittsworth. To address community concerns, an additional site visit was undertaken in October 2021 to assess the potential impact of views from the northern and northern eastern parts of Pittsworth and a view was obtained near the Assembly of God church to address the submitter's concern. As a result, an additional viewpoint assessment (Viewpoint 24) has been included within Appendix K: Landscape and Visual Impact Assessment Section 8.2.24 and Section 9.1.24. Another new view and visualisation in the Pittsworth area (Viewpoint 23) has also been included to assess impacts.	Appendix K: Landscape and Visual Impact Assessment Section 8.2.24 Section 9.1.24
219b	219b.0008	Private	Landscape and Visual Amenity		The submitter raised concerns that the EIS doesn't meet the objectives of the land Section of the TOR: Development should be designed and operated to: (a) improve environmental outcomes (b) contribute to community wellbeing (c) contribute to social, economic and environmental sustainability (d) mitigate impacts to the natural landscape and visual amenity.	Nil.	The Landscape and Visual Impact Assessment (LVIA) has been conducted in line with the methodology outlined in Section 4.0 of revised draft EIS Appendix K: Landscape and Visual Impact Assessment and has assessed impacts associated with the proposed route from a variety of publicly accessible representative viewpoint locations considered to communicate the potential of impacts on landscape and visual values associated with the Project. A broad range of representative viewpoints have been selected across the LVIA study area to represent a range of impacts. How the ToR have been addressed is outlined in Appendix A2: Terms of Reference Cross Reference Table. The revised draft EIS Appendix X: Social Impact Assessment includes a description of the Project's community benefits, and revised draft EIS Appendix Y: Economic impact assessment describes the economic benefits. Appendix X: Social Impact Assessment Technical Report (Section 7.4.9, 8.4.5 and 8.5.3) also describes potential Project legacies which will leave lasting benefits for local communities. In addition ARTC has committed to the development of a Community Wellbeing Plan that will facilitate community Projects supporting community wellbeing.	Appendix A2: Terms of Reference Cross Reference Table Appendix K: Landscape and Visual Impact Assessment Section 4.0 Appendix X: Social Impact Assessment Section 7.4.9 Section 8.4.5 Section 8.5.3
219b	219b.0009	Private	Landscape and Visual Amenity		The submitter raised concerns that the future views don't consider the noise barriers.	Nil.	An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area. As a result, an additional viewpoint assessment (Viewpoint 4) has been included within Appendix K: Landscape and Visual Impact Assessment Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3, Viewpoint 15 (now 20) and Viewpoint 17 (now 22) have been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. In addition, artist's impressions showing the potential for mitigation measures in these locations to reduce the visual impact/ improve visual amenity have been prepared, noting that these are indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and relevant Regional Council. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Appendix K: Landscape and Visual Impact Assessment Section 8.2.4 Section 9.1.4
219b	219b.0010	Private	Stakeholder Engagement		People living in Pittsworth had no say in the decision for Inland Rail to be routed past their town and have no support from their elected representatives in Federal, State or local government. Appeals last year at a CCC meeting at Biddeston for the Toowoomba Regional Council to convene a community meeting at Pittsworth, were vehemently refused. The reason given was that it wasn't a local council issue. This attitude of indifference by elected representatives and the failing of ARTC to properly communicate - not just engage - with local residents has left an abiding feeling of hopelessness, abandonment and anxiety among them.	This route is entirely unsuitable and the alignment should be honestly and professionally reviewed.	During preparation of the Project reference design and EIS, it was not within ARTC's scope to investigate alternative routes outside the study area that was set by the Australian Government following its review of the four alternative routes in the Yelarbon to Gowrie Corridor Options Report (DIRD, 2016). Appendix E: Consultation Report, Section 3 outlines the early engagement undertaken to determine the railway corridor. This can be found in the Yelarbon to Gowrie Corridor Options Report, available on the ARTC website. At the request of the Deputy Prime Minister, in 2020, ARTC prepared the Inland Rail Information Paper, which considered alternative Project alignments via Whetstone State Forest and Cecil Plains. It was concluded that the alternative alignment would result in a longer distance and transit time, increased costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The methodologies employed in the Information Paper were reviewed by GTA Consultants and were found to be suitable. Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details.	Appendix E: Consultation Report Section 3
219b	219b.0011	Private	Social Impact Assessment		The submitter raised concerns about impacts of the Project on amenity, property values, the social fabric of the town and liveability: "Many of the potentially impacted residents are retirees who have chosen the tranquility and friendliness of Pittsworth to live in harmony, dignity and happiness. Many more are families with young children seeking a healthy, safe and pleasant town to live, work and play. The building of this railway will mean that the value and saleability of their homes will suffer - as well as their lifestyle and health."	This route is entirely unsuitable and the alignment should be honestly and professionally reviewed.	The Terms of Reference for the EIS requires the selected alignment be assessed. In locating the rail line to the north of Pittsworth rather than following the existing rail line, the Project sought to minimise impacts on Pittsworth and its residents. The Project alignment diverts from the existing rail line to avoid the township of Southbrook. Revised draft EIS Appendix X: Social Impact Assessment, Section 7.1.9 notes that property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. Current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres. The Project has committed to a wide range of environmental mitigation and management measures to minimise noise impacts, impacts on scenic amenity and changes to connectivity which could otherwise affect property values.	Appendix X: Social Impact Assessment Section 7.1.9
219b	219b.0012	Private	General Project opinion - negative		The submitter raised concerns that the noise and visual amenity impacts of the railway will be unmitigable and that there is nothing that the people of Pittsworth can do about it, noting that "This situation is really not a fair go"	This route is entirely unsuitable and the alignment should be honestly and professionally reviewed.	ARTC acknowledges the concerns of the Pittsworth community regarding the proposed rail alignment for a high fill embankment. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the Pittsworth community. As noted in Section 2.8 of the Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected for a number of reasons including after extensive investigations. These reasons include that investigations show the location as having both improved technical viability and construction feasibility as well as there being fewer impacts to community, stakeholder, and properties. This resulted in the Pittsworth area being selected for the alignment. Through the environmental impact process, impacts have been avoided wherever possible, reduced, mitigated and managed to the greatest extent possible. ARTC remain committed to continuing to work with the directly impacted landowners as well as the local Pittsworth community to develop solutions that minimises or mitigates impacts of the Project wherever possible.	Chapter 2: Project Rationale Section 2.8
219c	219c.0001	Private	MNES	Koala	The submitter raised concerns that Koalas are listed as having a vulnerable classification despite conservation groups calling for the species to be listed as endangered.	Nil.	On the 12 February 2022, the Department of Agriculture, Water and the Environment (now the Department of Climate Change, the Environment, Energy and Water), changed the listing status for Koala (combined population of QLD, NSW and ACT) under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) from 'vulnerable' to 'endangered'. The Border to Gowrie Project was determined to be a controlled action prior to 12 February 2022. In accordance with Section 158A of the EPBC Act 1999, the Koala will continue to be assessed under its previous vulnerable listing status in the revised draft EIS. The revised draft EIS has been updated to note in Chapter 11: Flora and Fauna that the Koala has moved from Vulnerable to Endangered on 12 February 2022 advice.	Chapter 11: Flora and Fauna
219c	219c.0002	Private	MNES	Koala	The submitter raised concerns that the EIS only identifies Koalas at Pittsworth and Southbrook, however studies and scat collection over the last decade by Pittsworth Landcare and by concerned conservationists have observed Koalas/ Koala scats along the whole of alignment from Millmeran to Gowrie. Data has been downloaded onto Wildnet with GPS authentication. See submission for maps sourced from Landcare	Nil.	Appendix O: Matters of National Environmental Significance Report of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with commonwealth legislative requirements. Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. Surveys were informed by observations and other site-specific information provided in submissions and from consultation undertaken with community groups. The results of field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the Draft Koala Management Plan. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed in consultation with various agencies, community groups and academic groups, and with reference to written submissions received on the draft EIS as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.	Appendix E: Consultation Report Section 4.2 Section 5 Section 5.11 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Appendix P: Fauna Connectivity Strategy
219c	219c.0003	Private	MNES	Koala	The submitter raised concerns that the undulating timbered upland Downs country that Inland Rail will be constructed through has been proven to support a vibrant population of inner Downs Koalas and there is still sufficient and connected remnant vegetation to support them and that 'construction of this line will create an unprecedented, formidable obstruction which will prevent the free movement of Koalas from one side of the rail line to the other and the necessary clearing of natural vegetation from Yarranlea eastwards will permanently destroy significant remnant habitat, some of which is zoned.	Nil.	The Project footprint has been subject to historical disturbance and clearing, with one third of the alignment length located within brownfield (areas already subject to previous transport infrastructure development). The remaining greenfield portions of the Project area extend largely through areas subject to agricultural land uses. As outlined in Chapter 11: Flora and Fauna, the impact assessment considered the maximum potential area of disturbance and implemented a conservative approach to guide mitigation strategies. Mitigation measures have been developed and outlined in Chapter 11: Flora and Fauna. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS. Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. The revised draft Appendix P: Fauna Connectivity Strategy identifies the location of proposed fauna crossing opportunities for species such as Koala. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design stage and in the Wildlife Connectivity Plan that will be prepared. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design stage and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
219c	219c.0004	Private	MNES	Koala	The submitter raised concerns about noise impacts on Koalas and identified sections of the EIS where ARTC has noted both potential noise impacts and difficulties for Koalas to relocate. Submitter is concerned that ARTC has recognised the impact of construction noise on Koalas but has no policy to address the issue.	Nil.	<p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan (DKMP), Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. These plans and strategy propose specific management and mitigation measures to minimise impacts to Koalas associated with construction activities, including noise impacts.</p> <p>Noise impacts to listed threatened species that are associated with both construction and railway operations has been assessed in the revised draft EIS. Refer to EIS Chapter 11: Flora and Fauna. Specific management and mitigation measures for Koalas during both construction and railway operations have been proposed for Koalas in the DKMP and in Chapter 24: Draft Outline Environmental Management Plan.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix P: Fauna Connectivity Strategy</p>
219c	219c.0005	Private	MNES	Koala	The submitter raised concerns about impacts of blasting on Koalas, noting that blasting locations included areas of high-density Koala population and concern that loud noises from blasting would startle Koalas and cause them to panic and flee	The EIS should include detailed noise and vibration sub-plans as a component of the construction Environmental Management Plan including specific measures undertaken to mitigation noise and shock waves of blasting activities on Koalas	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan (DKMP) to support the revised draft EIS. The DKMP will be standalone appendix for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. This plan, as well as Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report, proposes specific management and mitigation measures to minimise impacts to Koalas associated with construction activities, including noise impacts.</p> <p>As part of the revised draft EIS, ARTC has undertaken extensive noise and vibration modelling for the construction works stage of the Project, including blasting activities. The modelling was done in accordance with the relevant Department of Transport and Main Roads Code of Practice. The modelled outputs, proposed management and mitigation measures has been presented in Chapter 16: Noise and Vibration and In Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Noise impacts to listed threatened species that are associated with both construction and railway operations has been assessed in the revised draft EIS. Refer to EIS Chapter 11: Flora and Fauna. Specific management and mitigation measures for Koalas during both construction and railway operations have been proposed for Koalas in the DKMP and in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>As part of the detailed design stage, and in order to obtain secondary approvals, detailed environmental management plans and species management plans will be prepared by ARTC. These plans will stipulate management measures/ requirements/ procedures that will reduce the risk of injury to native species, including the Koala.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix E: Consultation Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
219c	219c.0006	Private	MNES	Terrestrial fauna	Submitter raised concerns about potential entrapment of the Koala and Plains Earless Dragon in trenches and open pits.	The EIS should include plans for preventing mortality or injury from entrapment or accidents and contingency plans/ procedures for the rescue and treatment of injured Koalas	<p>Risk of entrapment of wildlife in trenches and open pits is minimised using standard construction techniques.</p> <p>Chapter 24: Draft Outline Environmental Management Plan contains all the fauna management and mitigations measures which as part of the detailed design stage, and in order to obtain secondary approvals, will be used to develop a detailed construction environmental management plans and species management plans. These plans will stipulate management measures/ requirements/ procedures that will reduce the risk of injury to native species, including the Koala and Condamine earless dragon.</p>	Chapter 24: Draft Outline Environmental Management Plan
219c	219c.0007	Private	MNES	Koala	Submitter raised concerns about the lack of information regarding the impacts of the construction of sediment basins on Koala habitat.	Submitter would like the EIS to include design specifications of sediment basins, the amount of clearing required, the reduction in Koala habitat, whether the sediment basins will be retained after construction or, if not, the rehabilitation plan for them and whether it would include planting of eucalypts for Koalas and contingency plans for any breaches	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act 1999. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and the University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works stage. Fauna crossing structures and fencing will be installed to maintain habitat connectivity and restrict access to the rail corridor. As outlined in Chapter 11: Flora and Fauna, these mitigation measures have been selected based on the best available information including government guidelines and similar Projects. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.</p> <p>Detail on proposed sediment basin locations and sizing is included within Chapter 5: Project Description, Section 5.6.18, Table 5-33. Temporary site drainage and water-management controls will be installed in order to minimise the impacts of runoff and sedimentation from construction activities on adjacent receptors. Temporary site drainage and water runoff management will be in accordance with the International Erosion Control Association's Best Practice Erosion and Sediment Control document (International Erosion Control Association, 2008) and will:</p> <ul style="list-style-type: none"> Minimise runoff and sedimentation from Project activities to existing watercourses and drainage features Minimise disturbance to the water quality of existing watercourses and drainage features along the Project alignment. <p>The revised reference design includes 20 sediment basins, as identified in Appendix B1: Design Drawings. All of the proposed sediment basins are passive, which allows surface runoff from a catchment to flow into the sediment basin without the need for pumping. The placement and sizing of sediment basins for the Project have been established based on the landform, earthworks and 80th percentile 5-day storm event required to construct the revised reference design. Therefore, the placement and sizing of sediment basins will need to be reassessed and revised, as required, as part of the detailed design process. Sufficient allowance has been included in the Project footprint for sediment basins to be relocated and/or resized, as required, to support the detailed design.</p> <p>Sediment basins that are not required post construction works stage, will be rehabilitated. Rehabilitation and restoration works of temporary disturbance areas are outlined throughout Chapter 24: Draft Outline Environmental Management Plan. Revegetation within the gazetted rail corridor will consist of non-woody vegetation due to rail safety requirements for an operational rail line.</p>	<p>Chapter 5: Project Description Section 5.6.18</p> <p>Table 5-33</p> <p>Chapter 11: Flora and Fauna</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Section 24.9</p> <p>Appendix B1: Design Drawings</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance Report</p>
219c	219c.0008	Private	MNES	Koala	Submitter raised concerns about safety impacts of vehicle activity accessing five laydown areas in proximity to Koala habitat.	The EIS should include measures to manage potential impacts of vehicle activity near laydown areas	<p>Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan (DKMP) to support the revised draft EIS. The DKMP will be standalone appendix for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes. This plan proposes specific management and mitigation measures to minimise impacts to Koalas associated with construction activities, including measures to minimise potential vehicle strikes to Koalas.</p> <p>Traffic Management Plans will also be implemented during construction, and will include mitigation measures such as driving to conditions, speed limits and dust management.</p> <p>As part of the detailed design stage, and in order to obtain secondary approvals, detailed environmental management plans and species management plans will be prepared. These plans will stipulate management measures/ requirements/ procedures that will reduce the risk of injury to native species, including the Koala. construction contractors will be trained in these plans, which will include a Traffic Management Plan. Should an incident occur with native wildlife, this is to be reported in line with reporting requirements and involve local wildlife carers as required.</p>	<p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5</p> <p>Section 5.1</p> <p>Appendix M: Draft Koala Management Plan</p>
219c	219c.0009	Private	MNES	Koala	Submitter raised concerns that: <ul style="list-style-type: none"> Inland Rail will dissect 8 and run adjacent to 5 areas of recognised importance for wildlife preservation between Yarranlea to south-west of Wellcamp airport. although Section 10.9.5 indicates that Inland Rail will intersect patchy, fragmented vegetation north of Pittsworth, the EIS fails to acknowledge the existence of continuous tracts of Koala habitat on both sides of the proposed route with the exception of short sections directly adjacent to Pittsworth and north of Southbrook building the Project through this area will create an unprecedented barrier to unrestricted movement of Koalas through their habitat and result in existing areas of habitat being isolated from one another and becoming unsuitable for future Koala colonisation the existing QR line has 25 slow moving trains annually and is built at ground level so presents no barrier for Koalas, however the Inland Rail design includes embankments and cuttings which will be impassable for Koalas and include 19 trains per day, including 8 night trains 	The EIS should include details of mitigation measures that will be implemented, as opposed to vague statements about what may be considered during detailed design.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.</p> <p>Appendix P: Fauna Connectivity Strategy identify the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised draft Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and TMR's Fauna Sensitive Transport Infrastructure Delivery manual (TMR, 2024). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised draft Appendix P: Fauna Connectivity Strategy.</p>	<p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5</p> <p>Section 5.11</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix O: Matters of National Environmental Significance Report</p> <p>Appendix P: Fauna Connectivity Strategy</p>
219c	219c.0010	Private	MNES	Koala	Submitter raised concerns about proposed mitigation measures including risks of Koalas climbing fauna fencing, not using fauna passages or attracting predators or high mortality rates from relocation.	The EIS should be altered to clearly demonstrate commitment to avoiding impacts to vulnerable species such as the Koala and protecting their habitat.	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS Appendix M: Draft Koala Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.</p> <p>Appendix P: Fauna Connectivity Strategy identify the location of proposed fauna crossing opportunities for species such as Koala. These have primarily been co-located with waterway crossing structures to maintain habitat connectivity across the rail corridor. The structures will aim to align with the State significant fauna movement corridor to the north of Inglewood and locations assessed as providing movement opportunities for the greatest number of species. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (Appendix P: Fauna Connectivity Strategy).</p> <p>The revised draft Appendix P: Fauna Connectivity Strategy proposes five different scenarios to mitigate the impact of the Project on connectivity for fauna and reduce wildlife mortality. These scenarios experiment with a range of fencing options and the type, placement and number of crossing structures and other mitigation measures (e.g. revegetation). These scenarios will be used to inform design workshops and community consultation at the detailed design stage. The exact type, design, number and location of crossing structures, fencing and other mitigation measures will be finalised during this stage. These plans and strategies have prepared with reference to Koala-sensitive Design Guidelines (DES, 2022), various internal ARTC guidelines and TMR's Fauna Sensitive Transport Infrastructure Delivery manual (TMR, 2024). The exact type, number and location of crossing structures, fencing and other mitigation measures will be finalised at the detailed design stage, once design workshops and community consultation are complete. However, five different mitigation scenarios have been proposed and evaluated as part of the revised draft Appendix P: Fauna Connectivity Strategy.</p>	<p>Appendix E: Consultation Report</p> <p>Section 4.2</p> <p>Section 5</p> <p>Section 5.11</p> <p>Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix M: Draft Koala Management Plan</p> <p>Appendix N: Draft Fauna Management Plan</p> <p>Appendix O: Matters of National Environmental Significance Report</p> <p>Appendix P: Fauna Connectivity Strategy</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
219c	219c.0011	Private	MNES	Koala	The range and numbers of Koalas in this region have been grossly underestimated by ARTC and their ecologists. Koala habitat exists but is under threat from Inland Rail. Koalas are a species of concern for groups such as Pittsworth Landcare who have been working with landholders to plant Koala friendly eucalypts and this environmental effort to support the future viability should not have been in vain.	The route of Inland Rail should be reconsidered.	<p>Appendix O: Matters of National Environmental Significance of the revised draft EIS, outlines the assessment undertaken to determine the degree of significance of impacts on Koala populations, against the Commonwealth's EPBC Act 1999 referral guidelines for the vulnerable listed Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) and the <i>Significant Impact Guidelines 1.1 - Matters of National Environmental Significance</i>. In instances where uncertainty existed, a worst case scenario was adopted. It is noted that the Koala will be subject to significant residual impacts and offset for this species will be required in order to comply with Commonwealth legislative requirements.</p> <p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. This field-verified data has been used to classify Koala habitat according to its function as foraging and breeding habitat and dispersal habitat in accordance with the definition of 'habitat critical to the survival' of the species, as defined under the EPBC Act. The most recent field data from the <i>Technical Ecological Assessment from Ausecology (2022)</i> for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed the following key documents to support the revised draft EIS. These include the following documents: Appendix M: Draft Koala Management Plan, Appendix N: Draft Fauna Management Plan and Appendix P: Fauna Connectivity Strategy. These documents will be standalone appendices for the revised draft EIS and were developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Refer to Appendix E: Consultation Report, Consultation Outcomes.</p> <p>The preferred location for the proposed Border to Gowrie rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> Ability to enhance the Inland Rail service offering Construction and operating costs Multi-criteria analysis (MCA). <p>As described in Chapter 2: Project Rationale, Section 2.8 and Section 2.9 of the draft EIS, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p>	<p>Chapter 2: Project Rationale Section 2.8 Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 4.2 Section 5.1 Section 5.10 Section 5.11 Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix O: Matters of National Environmental Significance Appendix P: Fauna Connectivity Strategy</p>
220	220.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	People living in Pittsworth had no say in the decision for Inland Rail to be routed past their town and have no support from their elected representatives in Federal, State or local government. Appeals last year at a CCC meeting at Biddeston for the Toowoomba Regional Council to convene a community meeting at Pittsworth, were vehemently refused. The reason given was that it wasn't a local council issue. This attitude of indifference by elected representatives and the failing of ARTC to properly communicate - not just engage - with local residents has left an abiding feeling of hopelessness, abandonment and anxiety amongst them.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
220	220.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
221	221.0001	Private	Noise and Vibration		The submitter is concerned about the noise from construction and operational use and maintenance which will create long-term hearing loss that cannot be reversed.	Relocate proposed track to another area where train bells horns and maintenance and possible disasters will effect less people and animals.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property and lifestyle during both construction works and operations stages. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment.</p> <p>The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS (Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic and Section 16.10 of Chapter 16: Noise and Vibration). Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The preferred location for the proposed rail corridor (as presented in the draft revised EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
225	225.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
225	225.0006	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
225	225.0015	Private - Brookstead	Noise and Vibration	Mitigation measures	The submitter states that the proponent has not mentioned the impacts on the operation that noise and vibration will have on individual properties and the intensive animals (feedlots) that are located close to the proposed line. The submitter states that animals will become agitated with excessive noise and vibration and the health of the animals are being put at risk.	The submitter states that the proposed rail line should be moved further away from these intensive animal feedlots/piggeries.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019) (refer to Appendix W: Noise and Vibration Assessment - Railway Operations, Sections 7 to 10).</p> <p>Noise and vibration impacts to livestock are not assessable under the revised draft EIS terms of reference and relevant legislation. However, ARTC has commissioned an independent technical review into the impacts of freight rail noise and vibration on domestic livestock animals. The findings of this review are referenced by ARTC to establish benchmarks from which to evaluate the risk of potential noise and vibration impacts at intensive animal operations and, if required, identify reasonable and practicable measures to mitigate identified impacts. The findings and recommendations of the assessment are discussed in Section 16.9 of Chapter 16: Noise and Vibration of the draft revised EIS.</p>	Chapter 16: Noise and Vibration Section 16.9 Appendix W: Noise and Vibration Assessment - Railway Operations Section 7 Section 8 Section 9 Section 10
225	225.0016	Private - Brookstead	Noise and Vibration	Mitigation measures	The submitter states that the assessment of sleep disturbance, will leave landholders with mental health issues.	The submitter states that the draft EIS needs to demonstrate the number of dwellings that will be affected and what mitigation is in place to address the issue	<p>ARTC acknowledges the concerns from the local community that noise and vibration has the potential to impact lifestyle and amenity during both construction and railway operations. During the community engagement process, noise, vibration, and visual amenity have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 of Appendix E: Consultation Report.</p> <p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Section 16.8 of Chapter 16: Noise and Vibration). The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments (refer to Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>Sleep disturbance has been assessed based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Project Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 16: Noise and Vibration Section 16.8 Section 16.10 Chapter 17: Social Appendix E: Consultation Report Section 5.6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
226	226.0002	Private	Noise and Vibration	Modelling	Section 7.3.1: Figure 8 does not clearly indicate the assumed notch setting values. Please add a second Y-axis for notch values to Figure 8.2. Section 7.3.1: Figure 8 does not appear to show any dynamic braking areas. Please confirm. 3. Section 7.3.1: The locomotive notch settings have been estimated for modelling purposes. This is of concern given the perceived impact of assumed notch settings have on predicted noise levels. Section 7.3.4: The third dot point (pg. 50) states that no assumptions were made for freight wagon defects. As such, the modelling does not provide an indication of potential elevated noise levels from aging, poorly maintained rolling stock. 5. Section 7.3.4: The last dot point (pg. 50) states that the noise level modelling assumed a track running surface free of defects. Again, this assumption is not conservative given the likelihood of defects developing during operation.	Proposed solution for point 3 mentioned above It is suggested that possibility of verifying assumptions via simulation, or consultation with experienced train drivers be considered. Proposed solution for point 4 mentioned above It is suggested that the modelling be repeated with assumptions made for common rolling stock defects, to determine the sensitivity of predicted noise levels to rolling stock defects. Proposed solution for point 5 mentioned above It is suggested that the modelling be repeated with track surface defects applied, to determine the sensitivity of predicted noise levels to track defects.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Details regarding the notch settings and modelling inputs are provided in the accompanying text in Chapter 16: Noise and Vibration, Section 16.4.6 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3.</p> <p>The noise source levels are based on measurements of existing locomotives undertaken at various gradients on existing sections of the ARTC network and therefore incorporate real-world notch settings into the source levels. Different drivers use different notch settings and accelerations, therefore estimating the notch setting ranges is a reasonable approach. Noise level predictions will be subjected to further detailed studies and verification of noise levels during initial operations.</p> <p>ARTC currently implements Wayside Noise Monitoring Systems across the rail network to identify individual rollingstock and the specific sources of noise for the targeted mitigation of railway noise. It is therefore expected that defective rollingstock can be readily identified and removed from service.</p> <p>Heavy haul railways like Inland Rail typically show relatively low levels of rail roughness: this is supported by the historical performance of other heavy haul railways as well as corrugation measurements taken on other sections of the ARTC network. There are also no tight radius curves on the alignment on which rail roughness may be more prone to development.</p> <p>Where rail roughness issues arise these can usually be treated with periodic maintenance procedures (e.g. rail grinding or rail milling). Where sections are particularly prone to corrugating, changes to the wheel rail interface such as changing the fastener stiffness, applying top of rail friction modifiers or adding rail dampers can also potentially address these issues.</p> <p>The track for Inland Rail will be continuously welded to eliminate noise from rail joints. It is expected other defects can be controlled with periodic maintenance.</p>	Chapter 16: Noise and Vibration Section 16.4.6 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3
226	226.0003	Private	Noise and Vibration	Modelling	Section 11.6: First dot point (pg. 123) indicates that noise due to bunching and stretching has been limited to trains decelerating into, and accelerating from crossing loops only. However, Figure 9, and Figure 10 in Section 7.3.2 (pg. 48-49), show changes in train speed near Pittsworth. It is therefore suspected that additional noise due to bunching, and stretching may also occur in the Section of track passing Pittsworth.	If this is a possibility, then the submitter thinks that the operational noise modelling should be repeated with appropriate assumptions made for bunching and stretching noise.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>Details regarding modelling inputs are provided in Appendix W: Noise and Vibration Assessment – Railway operations, Section 6.3.</p> <p>Stretching and bunching only occurs where trains reduce to, or increase from, very slow speeds. Where trains do not access crossing loops, speeds are not expected to reduce below 30 km/h. It is therefore not considered a realistic possibility that stretching and bunching would occur at locations outside of crossing loops. This is further discussed in Appendix W: Noise and Vibration Assessment – Railway operations, Section 6.3 and 12.4.</p>	Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3 Section 12.4
227	227.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	Chapter 16: Noise and Vibration Sections 16.4 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2 Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
227	227.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
229	229.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Sections 16.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>
229	229.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - constructions and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
23	23.0001	Private	Noise and Vibration	Mitigation measures	The operational rail noise for residents within 1 km of the rail alignment may have night-time noise exceeding 49 dB. Evidence from WHO says hypertension and myocardial infarction is more likely to occur at noises above 50 dB.	Residences within 1 km of the rail should have sound mitigation paid for by ARTC noise barriers, earth mounds, insulation, double glazed windows and air conditioners or any combination of these that will bring the night noise below a L_{max} of 49 prior to the tracks becoming operational.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dB Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
230	230.004	Private	Noise and Vibration		In Chapter 14, the EIS seems to focus on the short term impacts of construction noise and vibration and in the submitter's view inadequately addresses the issue of the long term noise impacts nor does it define actual mitigation measures to be adopted. This Chapter is quite technical and complex in terms of different dB(A) values, etc and makes no attempt to put the threshold or trigger noise levels into context and describe with some local context what the likely increases in noise levels actually mean in terms of residents and occupant perception of the noise increases and their peaceful enjoyment of their homes and indeed of their wellbeing.	Adopt lower trigger and threshold levels for action on noise and these should essentially be set at the existing noise levels so there is no noise impact on the community.	<p>ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project. The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
230	230.005	Private	Noise and Vibration	Baseline/background sampling	The trigger or threshold target levels of 60 dB(A) for 15 hours equivalent and 80 dB(A) max the submitter argues as being too high, particularly for a community that is used to much lower levels of noise and have been for some time and the quiet and tranquil nature of the region is why many of these residents have chosen to live here.	Nil.	<p>The railway noise assessment has been updated to adopt the assessment criteria from the Department of Transport and Main Roads Interim Guideline operational Railway Noise and Vibration (March 2019). The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance (Chapter 16: Noise and Vibration, Section 16.8). Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p>
230	230.006	Private	Noise and Vibration		In terms of mitigation measures, the EIS does not define any committed actions and pushes them into the category of being worked out during detailed design and construction stage. For example, the draft EIS states that the noise walls will only be considered at Yelarbon, Brookstead and Pittsworth where mitigation can effectively control noise at groups of sensitive land uses and receptor building where noise level reductions are required at sensitive receptors. The submitter feels that if the proponent considers that noise walls are ineffective in controlling noise, then they won't be installed - leaving the community perspective out.	Nil.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive land uses and sensitive receptors along the Project alignment.</p> <p>construction noise mitigation measures have been recommended in the revised draft EIS in accordance with the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>To illustrate how the proposed noise walls could look like, concept visualisations for the noise walls at Brookstead and Pittsworth have been included in the Landscape and Visual Amenity Technical Report for the revised draft EIS, noting that the design of noise walls will be further developed during detailed design. Current mitigation measures outlined in Section 11.2, Table 95 of Appendix K: Landscape and Visual Impact Assessment discuss potential mitigation measures for embankments and bridges. Potential mitigation measures for noise barriers are also discussed. Where these are or may be required, they will be designed sympathetically to their surroundings, and where appropriate, will consider the inclusion of community artwork. Viewpoint 20 (Near Brookstead State School) in Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2.20, has been updated to include an artist's impression showing the potential for mitigation measures in this location has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2.20</p> <p>Section 11.2</p> <p>Table 95</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
230	230.007	Private	Noise and Vibration		At the Pittsworth site in particular the rail alignment is on a 14 m or so high embankment and crosses over a rail over road bridge and hence noise wall would not be effective in this situation. However, noise walls near properties will tend to block you in and diminish any outlook from the property and so the residents and community will lose amenity and part of the attraction of living in the town which is the open spaces and being able to be part of the overall landscape. So noise may be mitigated but another impact is imposed.	The provision of mitigation measures needs to be more appropriate and sensitive to the current lifestyle and social settings of the townships and individual dwellings impacted and not involve any compromise on the existing amenity enjoyed by the communities being impacted.	<p>The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline - operational Railway Noise and Vibration (March 2019), with results being presented in the revised draft EIS. Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations. The assessment of railway noise barrier mitigation has also been updated (refer to Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Project LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4 and Appendix K: Landscape and Visual Impact Assessment, Section 11.2. It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and further liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 11.2</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p> <p>Section 17.4</p>
233	233.0012	State	Noise and Vibration	operational rail noise	<p>Inclusion of World Health Organisation (WHO), 2009, "Night Noise Guidelines for Europe" has no direct reference in the ToR or other TMR guidance/policy, unlike the other Australian, British and German Standards that are either specifically listed in the ToR and/or cross-referenced in the TMR's Code of Practices/ Interim Guidelines.</p> <p>Inclusion of the WHO Guideline's reference also appears inconsistent with the intent of Clause 11.124 in the ToR. Only reference to the WHO 2009 guideline is in the DES Noise Measurement Manual. However, this Manual outlines noise from ordinary use/ operations of rail transport infrastructure is not within scope of the manual's application being an activity listed in Schedule 1 of EP Act.</p> <p>The inclusion of this reference is not expanded upon and creates confusion, including with expectation for mitigation.</p>	<p>Clarify the relevance of WHO 2009 Night Noise Guidelines for Europe to the Project, and whether or not it will not be used criteria to comply with. If not, provide context to its inclusion.</p>	<p>Whilst guidance from the World Health Organisation can, in some circumstances, provide supporting advice on aspects such as sleeping disturbance, ARTC has elected to no longer reference the World Health Organisation guideline noise levels in the revised draft EIS.</p> <p>This decision was based on the noise and vibration assessments for the revised draft EIS now adopting relevant noise and vibration criteria from DTMR's Transport Noise Management Code of Practice Volumes 1 and 2 and the Interim Guideline. The submissions to the draft EIS also highlighted the application of supplemental guideline noise levels was potentially confusing to stakeholders and the community, leading at times to a misinterpretation of the assessment and its findings.</p> <p>References to the World Health Organisation guidelines have been removed from Appendix W: Noise and Vibration Assessment - Railway Operations. Refer to Section 3 Appendix W: Noise and Vibration Assessment - Railway Operations that provides guidance on the relevant application of legislation, standards and Guidelines for operational rail noise in Queensland. Section 11 provides further discussion on the assessment of sleep disturbance impacts.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 3</p> <p>Section 11</p> <p>Section 17.4</p>
233	233.0013	State	Noise and Vibration	operational rail noise	<p>Audible safety warning devices (both crossing alarm bells and train horns) used at active level crossings has been included in the scope of modelling predicted levels.</p> <p>This inclusion of train horns specifically is not consistent with Section 2.2.1 (operational Airborne Noise Criteria) of TMR's Interim Guideline for operational Noise and Vibration (GST1) and therefore, not consistent with Clause 11.121 (f) of the ToR.</p>	<p>Due to public safety obligations, exclude train horns and crossing alarm bells from the scope of modelling inputs to operational predicted noise levels.</p>	<p>The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>The revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations states that in level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3).</p> <p>Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 6.3</p>
233	233.0014	State	Noise and Vibration	operational rail noise	<p>No clarity or mention to the WHO 2009 Night Noise Guideline's recommended level with respect to whether or not it also defines Assessment Criteria and/or "best practice environmental management" as part of ARTC's rail noise management strategy.</p> <p>This is important for ToR compliance with both "Impact Assessment" and "Mitigation Measures" (Clause 11.124) perspectives. QR has an interest noting the proposed mitigation measures at both Yelarbon and Brookstead being in the form of noise barriers that may be constructed near, beside or on the existing rail corridor (see Figures 24 and 25 of Appendix T – SLR operational Noise and Vibration Report).</p>	<p>Describe whether ARTC rail noise management strategy includes the WHO (2009) Night Noise Guidelines' Recommended Level of 42 dB(A) internal L₉₀ level as either or both an Assessment Criteria and Best Practice Environmental Management for designing/ implementing mitigation measures.</p>	<p>Whilst guidance from the World Health Organisation can, in some circumstances, provide supporting advice on aspects such as sleeping disturbance, ARTC has elected to no longer reference the World Health Organisation guideline noise levels in the revised draft EIS.</p> <p>This decision was based on the noise and vibration assessments for the revised draft EIS now adopting relevant noise and vibration criteria from DTMR's Transport Noise Management Code of Practice Volumes 1 and 2 and the Interim Guideline. The submissions to the draft EIS also highlighted the application of supplemental guideline noise levels was potentially confusing to stakeholders and the community, leading at times to a misinterpretation of the assessment and its findings.</p> <p>References to the World Health Organisation guidelines have been removed from Appendix W: Noise and Vibration Assessment - Railway Operations. Refer to Section 3 Appendix W: Noise and Vibration Assessment - Railway Operations that provides guidance on the relevant application of legislation, standards and Guidelines for operational rail noise in Queensland. Section 11 provides further discussion on the assessment of sleep disturbance impacts.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 11</p> <p>Section 17</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
233	233.0015	State	Noise and Vibration	operational rail noise	There is limited discussion or summary details provided relative to the comparison against the WHO (Europe) 2009 night noise criteria. Hence, it is difficult to determine the effect on such exceedances and whether the WHO night noise will drive compliance and any Project mitigation works required under Clauses 11.125 to 11.126 of the ToR.	Provide more clarity on how the Assessment Criteria status of the WHO Night Noise Guideline's Recommended Level in ARTC overall operational noise management approach.	<p>Whilst guidance from the World Health Organisation can, in some circumstances, provide supporting advice on aspects such as sleeping disturbance, ARTC has elected to no longer reference the World Health Organisation guideline noise levels in the revised draft EIS.</p> <p>This decision was based on the noise and vibration assessments for the revised draft EIS now adopting relevant noise and vibration criteria from DTMR's Transport Noise Management Code of Practice Volumes 1 and 2 and the Interim Guideline. The submissions to the draft EIS also highlighted the application of supplemental guideline noise levels was potentially confusing to stakeholders and the community, leading at times to a misinterpretation of the assessment and its findings.</p> <p>References to the World Health Organisation guidelines have been removed from Appendix W: Noise and Vibration Assessment - Railway Operations. Refer to Section 3 Appendix W: Noise and Vibration Assessment - Railway Operations that provides guidance on the relevant application of legislation, standards and Guidelines for operational rail noise in Queensland. Section 11 provides further discussion on the assessment of sleep disturbance impacts.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessments - Railway Operations Section 3 Section 11 Section 16 Section 17.4
233	233.0016	State	Noise and Vibration	operational rail noise	Table 14.37 outlines design considerations with the objectives to remove the need for trains to sound horns with the use of wayside level crossing alarms. Although this is a good acoustic design objective, this needs to be placed in context of rail safety requirements of the Railway Manager(s) consistent with the corresponding Clause 11.143 of ToR that require the Project to ensure safety of people during operation stage. Interface risks with other Railway Managers does not appear to be adequately addressed. Clause 11.143 of the ToR acknowledges the proposed Project's co-location and potential interaction between Railway Managers with the Millmerran Branch and South Western Line.	Provide additional wording to highlight that the need to sound the horn will still be determined by rail safety accreditation and the applicable Safety Management System of the responsible Railway Manager.	Additional wording to be included in Chapter 16: Noise and Vibration (Table 16.37: Proposed Noise and Vibration Mitigation Measures) to highlight that the sounding of the train horn is currently a requirement of the network rules and any changes will subject to further review in line with relevant safety requirements.	Chapter 16: Noise and Vibration Section 16.10 Table 16-37
233	233.0024	State	Noise and Vibration	operational rail noise	<p>Audible safety warning devices (both crossing alarm bells and train horns) used at active level crossings has been included in the scope of modelling predicted levels.</p> <p>This inclusion of train horns specifically is not consistent with Section 2.2.1 (operational Airborne Noise Criteria) of TMR's Interim Guideline for operational Noise and Vibration (GSTI) and therefore, not consistent with Clause 11.121 (f) of the ToR.</p>	Due to public safety obligations, exclude train horns and crossing alarm bells from the scope of modelling inputs to operational predicted noise levels.	<p>The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019).</p> <p>The revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations states that in level crossings, noise associated with train horns and warning devices are excluded from the noise assessment under the Interim Guideline due to the safety obligations associated with such noise sources (Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6.3).</p> <p>Whilst these sources are not assessed under the DTMR requirements, the noise levels from train horns and level crossings have been considered separately to quantify their effects and inform design development to minimise noise. The study assumed all active level crossings included noise sources during each train passby for the crossing alarm bells and approaching train horns. The passive level crossings only included the train horns as noise sources.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 6.3
233	233.0025	State	Noise and Vibration	operational rail noise	There is limited discussion or summary details provided relative to the comparison against the WHO (Europe) 2009 night noise criteria. Hence, it is difficult to determine the effect on such exceedances and whether the WHO night noise will drive compliance and any Project mitigation works required under Clauses 11.125 to 11.126 of the ToR.	Provide more clarity on how the Assessment Criteria status of the WHO Night Noise Guideline's Recommended Level in ARTC overall operational noise management approach both in terms of number of exceedances and triggers for noise mitigation.	<p>Whilst guidance from the World Health Organisation can, in some circumstances, provide supporting advice on aspects such as sleeping disturbance, ARTC has elected to no longer reference the World Health Organisation guideline noise levels in the revised draft EIS.</p> <p>This decision was based on the noise and vibration assessments for the revised draft EIS now adopting relevant noise and vibration criteria from DTMR's Transport Noise Management Code of Practice Volumes 1 and 2 and the Interim Guideline. The submissions to the draft EIS also highlighted the application of supplemental guideline noise levels was potentially confusing to stakeholders and the community, leading at times to a misinterpretation of the assessment and its findings.</p> <p>References to the World Health Organisation guidelines have been removed from Appendix W: Noise and Vibration Assessment - Railway Operations. Refer to Section 3 Appendix W: Noise and Vibration Assessment - Railway Operations that provides guidance on the relevant application of legislation, standards and Guidelines for operational rail noise in Queensland. Section 11 provides further discussion on the assessment of sleep disturbance impacts.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section Section 11 Section 17 Section 17.4
235	235.0002	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> ▶ Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. ▶ Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. ▶ Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. facade treatments, fence treatments or air conditioning. ▶ Confirm all relevant school bus services to enable consultation with the operators. ▶ Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> ▶ Commence implementation of management measures relating to schools as agreed during the detailed design stage. ▶ Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. ▶ Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Qld) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	Chapter 16: Noise and Vibration Section 16.10 Chapter 17: Social Section 17.6 Table 17-41 Appendix E: Consultation Report Section 5.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
235	235.0004	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2</p> <p>Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
235	235.0004	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 16.5 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.5</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 5.1 Section 5.2</p> <p>Appendix A Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Appendix A</p>
236	236.0006	Private	Noise and Vibration	Cumulative impacts	The submitter outlines that his property is considered a sensitive receptor. With existing mine and power station in his area, he is concerned about the cumulative noise and vibration impacts of the rail Project. His home is also a business area for him which have not been considered for assessment by ARTC. In the past, the submitter has experienced blasts at mines which have been disruptive and destructive to his business.	<ol style="list-style-type: none"> The impact to the submitter's business needs to be assessed as having cumulative impacts when rail noise is combined with those from the nearby mine and power station. Reject EIS as it has failed to address these issues. 	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment.</p> <p>Under the DTMR Code of Practice Volume 2: construction Noise and Vibration, construction noise and vibration criteria for dwellings is the same as or more stringent than the criteria for commercial or retail areas. Considering this receptor as a residential dwelling therefore assesses construction noise and vibration impacts against the most stringent applicable criteria at the receptor. Considering this receptor as a commercial area would not result in the assessment of construction noise and vibration impacts at the receptor against more stringent criteria. Cumulative impacts from the Commodore Coal Mine, Millmerran Power Station, and the construction of the Project have been considered and such consideration is included in the revised draft EIS.</p> <p>Commercial and business areas are not considered sensitive receptors under the DTMR Noise Management Code of Practice Volume 1: Road Traffic Noise. A residential receptor type is the only appropriate type to consider this receptor for operational road traffic noise assessment. If the area was considered commercial, it would not be assessed for operational road traffic noise impacts.</p> <p>Commercial and business areas are not considered sensitive receptors under the DTMR operational Rail Interim Guideline. However, rail noise criteria for office areas are same as for residential properties.</p> <p>Cumulative noise impacts is addressed in Section 9 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic and Section 15 of Appendix W: Noise and Vibration Assessment - Railway Operations of the revised draft EIS and Section 16.12 of Chapter 16: Noise and Vibration. ARTC is not responsible for disturbance caused by other parties. Noise and vibration mitigation measures are discussed in Chapter 16: Noise and Vibration, Section 16.10</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10 Section 16.12</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 9</p> <p>Appendix W: Noise and Vibration Assessment - Railway operations Section 15</p>
237	237.0014	Private	Noise and Vibration	construction airborne noise	The EIS identifies sensitive receptors for Project operational activities (Appendix T operational Railway Noise and Vibration Technical Report) in accordance with Interim Guideline - operational Railway Noise and Vibration: Government Supported Transport Infrastructure (DTMR, 2019). The interim guideline defines 'accommodation activities' as a sensitive land use, which includes the activity of housing 'non-resident workforce accommodation'. The EIS does not identify any of the GrainCorp sites as non-resident workforce accommodation, despite the presence of night-time sleep accommodation areas and rest buildings offered by each, and none of the sites is considered for operational noise and vibration impact assessment. GrainCorp considers the process of identifying sensitive operational noise and vibration receptors to be erroneous.	GrainCorp requests the EIS undertake the operational noise and vibration impact assessment in consideration of actual land uses present at its grain handling facilities.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). ARTC has used the latest building data aerial imagery, and land use information to identify sensitive receptors within the EIS study area. The GrainCorp accommodation in Brookstead is represented by receptor 261493, as shown in Appendix W: Noise and Vibration Assessment - Railway Operations, Appendix A-Map 44A.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>With respect to construction noise, the GrainCorp accommodation in Brookstead is represented by the same receptor, 261493, as shown in Appendix C and Appendix D of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations. ARTC has undertaken engagement with businesses, including GrainCorp (Appendix E: Consultation Report)</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix E: Consultation Report Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Appendix C Appendix D Appendix W: Noise and Vibration Assessment - Railway Operations Section 16 Appendix A</p>
238	238.003	State Agency	Noise and Vibration		The department has significant concerns regarding the adequacy and results of the noise and vibration assessment, including the failure to adequately consider the impact of the development on sleep disturbance other than commit to appropriate attenuation treatments to mitigate acoustic impacts at properties along the alignment, with no specific details provided. The draft EIS states that at 130 sensitive receptors the noise prediction is exceeding the $L_{Aeq}(9hour)$ night time noise criteria of 55 dBA by 1 to 12 dB (see Figure 12, Predicted night-time $L_{Aeq}(9hour)$ rail noise levels (year 2026) & Figure 15, Predicted night-time $L_{Aeq}(9hour)$ rail noise levels (year 2040)). For sensitive receptors requiring more than 10dB noise mitigation, the draft EIS should provide specific detailed information, rather than the high-level information provided.	The draft EIS should detail how the required noise attenuation at identified sensitive receptors identified in the draft EIS of more than 10dB above noise criteria will be achieved, costed, and implemented. The draft EIS should clearly articulate the proposed mitigation strategy for all identified adversely impacted sensitive receptors (including for sensitive receptors identified as likely to experience night noise levels above 10dB). It should be expressed as a function of the attenuation required, given the large number of identified residences requiring noise mitigation. The plan should include details of the attenuation required at each sensitive receptor and how it will be achieved. Evidence that the proposed mitigation will work and are practical should also be provided. The strategy should describe the protocol that would be deployed for up from 5dB to 10dB and 10dB to 15dB noise mitigation at a residence. The draft EIS should identify how many sensitive receptors are predicted to have a noise exceedance from the noise criteria in these ranges. The draft EIS should report the outcomes of consultation with directly affected landowners, including the level of acceptance or otherwise by affected parties. The draft EIS should discuss any proposed plans if residents refuse to have mitigation work done on their homes. The draft EIS should discuss up to what value of noise mitigation work is considered cost-effective, rather than potential purchase of a residence. Options for dealing with the Projected excessive noise impacts, including purchasing of residences, should be fully described in the EIS. Clear commitments are needed for actions prior to and after approval (if granted) and particularly before construction and operation of the Project.	<p>The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). Potential sleep disturbance impacts have also been assessed using a criteria based on the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'), further discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. All permanent noise mitigation will be in place prior to the commencement of Inland Rail operations.</p> <p>Noise mitigation measures will be further investigated during the detailed design stage and installed prior to Inland Rail operations commencing, where it is deemed reasonable and practicable. Compliance noise and vibration monitoring will be undertaken within 6 months of Project opening to ensure that mitigation measures are adequate. If the results of monitoring indicate additional exceedances of the operational noise and vibration criteria, then additional reasonable and practicable mitigation will be implemented in consultation with affected property owners.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>
240	240.0001	Private	Noise and Vibration	construction airborne noise	The submitter is concerned about noise from machinery and trains. Noise generated from these, will have an impact on our overall health and well-being. Noise will affect our hearing, based on your study we can expect the noise to increase substantially during construction and then continue further upon completion. Recently his area of residence has seen a rise in traffic levels, resulting in increase in noise level. Installation of a highway and double decker rail in front of our home will have a major impact on our whole household. Resulting in ongoing physical and Mental Health Issues, including insomnia.	<ol style="list-style-type: none"> Double glazing of all house windows, soundproofing fence. Moving existing house and outbuildings back on block 3-6 mtrs. Re-establish tank and fit filter system to address dust and other airborne pollutants Establishment of electric gates for easy access of front/ back entrances. Establish soundproofing in the floor wall and roofing areas for effective protection to be implemented. Implementation of permanent soundproof fencing/ barrier. Arrange for another suitable home for us to move permanently. 	<p>The construction noise levels at this receptor are predicted to be above the standard hours upper limit, for most construction activities. Therefore mitigation measures will be adopted following community consultation prior to works commencing. It is noted that the predictions for the EIS are conservative unmitigated worst-case 15-minute construction noise levels based on a preliminary construction methodology (Section 6.1 of Appendix V: Noise and Vibration Assessment construction and Road Traffic). Reasonable and practicable measures to minimise construction noise impacts to below the standard hours lower noise limit will be nominated and implemented following a detailed assessment of construction noise impacts during the detailed design stage of the Project.</p> <p>Mitigation measures to be considered have been included in the EIS (Appendix V: Noise and Vibration - Construction and Road Traffic, Section 7 of Appendix V: Noise and Vibration Assessment- Construction and Road Traffic and Section 16.10 of Chapter 16: Noise and Vibration). This may include conducting works while the property is unoccupied, or offering periods of respite for this receptor to manage any residual impacts. It is noted that construction noise impacts are temporary in nature and will subside as construction activities progress away from the area.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6 Section 7</p>
240	240.0002	Private	Noise and Vibration	construction groundborne noise	The submitter is extremely concerned about the noise which will result from building the highway and railway outside their home. They are concerned that their house will not withstand the vibrations resulting from the construction stages of both the railway and highway. This will result in Mental Health Issues Anxiety, Insomnia.	<ol style="list-style-type: none"> Move our home back on our block. Establish new laundry and tank with water filtration system. Implementation of permanent soundproof fencing/ barrier. 	<p>The operational road traffic noise assessment was undertaken in accordance with the Queensland Department of Transport and Main Roads (DTMR) Transport Noise Management Code of Practice Volume 1—Road Traffic Noise (CoP Vol 1) (refer to Section 8 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). The 2038 road traffic noise levels (10 years after the Project commissioning) were predicted to exceed the 68 dB LA10(18h) noise limit at 8 Taloom Street (receptor ID 254562) by 2 dB. Road traffic noise mitigation for the Project is discussed in Section 8 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. It is noted that the property is in a non-access controlled road situation (the house only has access from Taloom Street), therefore noise treatments are not warranted according to CoP V1.</p>	<p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 8</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
240	240.0003	Private	Noise and Vibration	construction road traffic noise	The current noise and vibrations felt from heavy machinery are making it difficult for the submitter and family to hear when talking to people either in person or via phone calls in the front of home. The submitter already has hearing problems which will only be degraded further from ongoing highway noise invading their home. It is expected, based upon EIS results that this noise level will be accentuated with the construction and completion stages of the Highway and rail. With the proposed highway changes, the new highway will be immediately outside their home, considerably closer, therefore causing continual unacceptable noise. This noise is expected, to be more excessive than they are currently experiencing. This will aggravate hearing problems and mental health issue.	<ol style="list-style-type: none"> 1. Move the house back on the block. 2. Double Glazing and sound proofing the front fence as well. All recommended changes should be completed prior to works being undertaken. A suggestion was made to move the house backwards on their block to help reduce the noise. This could be an option to assist with noise reduction, along with the above suggestions. 3. Provision of suitable accommodation should be made during this house moving period. 4. Implementation of permanent soundproof fencing/ barrier. 5. Supply a new home or compensation to purchase a replacement home. 	<p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the detailed design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p> <p>Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys to assess the structural integrity of buildings along the alignment in accordance with the assessment considerations outlined in Section 16.10 of Chapter 16: Noise and Vibration.</p> <p>Revised Operational noise and vibration modelling has been undertaken and results are presented in the revised draft EIS. Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix: W operational Railway Noise and Vibration Technical Report. The draft revised EIS further discusses a range of reasonable and practicable mitigation measures to reduce and control noise and vibration.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7</p> <p>Appendix W: Noise and Vibration Assessment - construction and Road Traffic Section 17</p>
240	240.0004	Private	Noise and Vibration		Vibration experienced during the construction stage of both the rail and road have potential to cause physical damage to the submitters' dwelling. Ground vibration may potentially undermine the load bearing walls and piers of their home. Paintings or pictures fall from walls and glass pictures have been broken. There is potential for noise to be experienced as intrusive on everyday life or disruptive to outdoor social activities.	Move and Restump their house before commencement of construction. Move associated outbuildings back on block to a reasonable sound/ noise level, re-site tank and setup with filter system to address airborne pollution from traffic and trains, establish double glazed windows to assist in reduction of noise, establish electric gates for both front and back entrance for resident safety, construct carport for back entrance.	<p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the detailed design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p> <p>Prior to construction commencing, ARTC will undertake building condition or dilapidation surveys to assess the structural integrity of buildings along the alignment in accordance with the assessment considerations outlined in Section 16.10 of Chapter 16: Noise and Vibration.</p> <p>Revised operational noise and vibration modelling has been undertaken and results are presented in the revised draft EIS. Noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix: W operational Railway Noise and Vibration Technical Report. The draft revised EIS further discusses a range of reasonable and practicable mitigation measures to reduce and control noise and vibration.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7</p> <p>Appendix W: Noise and Vibration Assessment - construction and Road Traffic Section 17</p>
241	241.0003	Private	Noise and Vibration	construction airborne noise	The submitter is concerned about noise.	The submitter wants sound proof windows installed at his place.	<p>ARTC acknowledges the concerns from the local community that noise and vibration has the potential to impact lifestyle and amenity during both construction and railway operations. The revised draft EIS has identified the potential for sensitive receptors to be impacted from both construction and operational noise and vibration impacts in exceedance of the nominated DTMR noise criteria.</p> <p>The construction vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction vibration impacts during the detailed design stage of the Project will be undertaken. Mitigation has been included in the revised draft EIS (Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic).</p> <p>The railway noise assessment was undertaken in accordance with DTMR's Interim Guideline (2019) and has been updated to provide a revised impact assessment, including examples of at-property noise treatments and concept barrier design. The noise and vibration assessment information, including discussion on noise mitigation, can be found in Section 17 Appendix W: Noise and Vibration Assessment - Railway Operations and Section 16.10 of Chapter 16: Noise and Vibration of the revised draft EIS. The development and implementation of such measures will be subject to verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix V: Noise and Vibration Assessment - construction and Road Traffic Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
242	242.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the northern side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS as discussed in Section 16.10 of Chapter 16: Noise and Vibration. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> ▶ Reducing the charge size by use of delays and reduced charge masses ▶ Ensuring adequate blast confinement to minimise the amount of overpressure ▶ Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. ▶ Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors ▶ Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. ▶ Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Border to Gowrie Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale Section 2.8</p> <p>Chapter 16: Noise and Vibration Section 16.6 Section 16.10</p> <p>Chapter 17: Social Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17</p>
242	242.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP03) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4</p> <p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix E: Consultation Report Section 5.6 Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
243	243.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.6 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS as discussed in Section 16.10 of Chapter 16: Noise and Vibration. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that during the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Border to Gowrie Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.6</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
243	243.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP03) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p>
248	248.0004	Private - Brookstead	Noise and Vibration		The submitter highlights that the location of the Brookstead Rural Fire Brigade shed is situated approximately 70 m from the proposed rail line and given it is the hub of the volunteer fire service amenities, the rail will detrimentally impact on these activities. Access to the shed will be restricted at certain times and noise and vibration will adversely impact, electronic training equipment as well as regular training and maintenance activities. Brookstead Rural Fire Brigade volunteers will be subjected to excessive noise and vibration as residences are in close proximity to the rail corridor, and the volunteer firefighters will be impacted in a detrimental way due to proximity to the rail line and adjacent level crossing.	The submitter states that the EIS document should be rejected by the Coordinator General until the community consultation process is completed full, with transparency and accountability, to ensure a fair process where community concerns are heard, acknowledged, considered and that the community is truly empowered in influencing the best possible outcome in their region, especially for essential Emergency Services where life-and-death responses are involved. The consultation in the Brookstead region needs to revisit decisions around rail and bridge design in the village of Brookstead, road access changes and the impact on residences, local businesses and local support groups, specifically the Brookstead Rural Fire Brigade Shed access and operation. The EIS document needs to be rejected in its current form, and completed to include all affected Emergency Services and local community groups as stakeholders in Table 2.2. The EIS document needs to be rejected in its current form, and completed to include all details around road and rail design, including level crossing, so that we can address impacts on emergency services within our local community, according to the Terms of Reference for the EIS. The submitter requests that the Coordinator-General ask ARTC to withdraw the draft EIS and ensure that all necessary items under the terms of reference are incorporated into the draft EIS for the Coordinator-General and stakeholders, including affected landholders on the Condamine River floodplain. Specifically, we ask that ARTC expand the EIS and provide detail on Project footprint including areas to be acquired, final level crossing design, utilities, cross drainage configuration, signalling and communications, vertical alignment of the railway, bridge structure design, fencing strategy, impacts to QR assets, concrete facility, construction water, borrow pit locations, and non-resident workforce and accommodation.	<p>ARTC acknowledges the concerns from the community that noise and vibration have the potential to impact lifestyle and amenity during both construction and railway operations. During the community engagement process, noise, vibration, and visual amenity have been identified as potential negative impacts to the community along the Project alignment (see the revised draft EIS Appendix E: Consultation Report). The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the Project alignment. The assessments have identified as the Brookstead Rural Fire Brigade as a sensitive receptor for noise and vibration, and applied noise criteria to assess potential impacts.</p> <p>The revised draft EIS Appendix E: Consultation Report, Section 5.6, states that engagement with all sensitive receptors will be undertaken as ongoing and transparent engagement will be critical to determining mitigation measures during the detailed design stage. The results of the revised draft EIS Appendix W: operational Railway Noise and Vibration Technical Report indicate where the predicted noise levels would exceed the noise assessment criteria requiring mitigation measures to be investigated. ARTC will engage with sensitive receptors based on the modelling results. Where modelling indicates a potential for construction and/or operational railway noise to affect the amenity of the community halls and churches, ARTC will continue to consult with the management committees/ trustees of churches and community halls, including the Brookstead Rural Fire Brigade (Appendix E: Consultation Report, Section 5.6).</p> <p>The railway noise assessment has been conducted in accordance with DTMR's Interim Guideline (2019), to provide a revised impact assessment, including examples of at-property noise treatments and noise barrier mitigation. The noise and vibration assessment information, including discussion on noise mitigation, can be found in Appendix W: Noise and Vibration Assessment - Railway Operations and Chapter 16: Noise and Vibration of the revised draft EIS. There will be engineering and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p>
251	251.0003	Private - Brookstead	Noise and Vibration	Modelling	Not all residences in the communities of Millmerran, Pampas, Brookstead, Pittsworth and Southbrook communities have been identified to lie within the area impacted by noise and vibration of the rail during both construction and operation, and there is a lack of clarity as to why some residences are included and others are omitted. There are apparent discrepancies in the classification of 'sensitive receptors' and notation of residences marked as sensitive receptors in Appendix T.	The draft EIS submitted by the proponent should be rejected on the grounds that: Non-compliance with TOR set by CG 16.11.2018.	<p>ARTC acknowledges the concern from the community that some sensitive receptors were potentially missed during the initial stage of the noise and vibration modelling for the draft EIS. ARTC is now confident that all sensitive receptors have been identified for use in the revised draft EIS modelling. The revised draft EIS has been updated to address potential impacts from both construction and operational rail noise and vibration to sensitive receptors along the Project alignment. ARTC has used the latest building data aerial imagery to identify sensitive receptors within the revised draft EIS study area in accordance with the Department of Transport and Main Roads guidelines.</p> <p>Both the construction and operational noise assessment study areas cover an area within a 2 km radius of the revised draft EIS Project alignment. The study area is substantially larger than normally applied on transport infrastructure Projects, which usually only consider an area large enough to capture the closest receptors.</p> <p>Construction noise and vibration sensitive receptors (as defined by the Department of Transport and Main Roads Transport Noise Management Code of Practice Volume 2: Construction Noise and Vibration) have been identified based on a combination of property data and aerial imagery. No missing construction receptors near Brookstead and Pampas have been identified. More detail on the identification and categorisation of sensitive receptors is in draft revised EIS in Section 17.4 in Chapter 16: Noise and Vibration and in Sections 5.1 and 5.2 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The individual sensitive receptors are detailed in the route maps provided in Appendix A of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic.</p> <p>Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Railway Noise and Vibration (March 2019), with the results being presented in the revised draft EIS. Sensitive receptors and related land uses were identified in accordance with the Interim Guideline (2019). Refer to Section 16.5 of Chapter 16: Noise and Vibration and Section 5 and Appendix A of Appendix W: Noise and Vibration Assessment - Railway Operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 17.4</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 5.1</p> <p>Section 5.2</p> <p>Appendix A</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 5</p> <p>Appendix A</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
251	251.0005	Private - Brookstead	Noise and Vibration	Mitigation measures	No alternative solutions have been discussed with the Brookstead community for feasible alternative with less social impacts on the schools affected and their day-to-day activities. Lack of detail and certainty in the mitigation options and activities in Section 23.4.9.2 and demonstrates that the detail around noise mitigation has not been developed. The lack of detail and Project planning does not sufficiently address criteria 11.124 and 11.125 in the ToR.	The draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until the detailed design stage.	<p>ARTC acknowledges that the community has concerns regarding potential noise and vibration impacts to property, lifestyle and day-to-day activities during both construction works and operations stages, and associated mitigation measures. The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors, including schools along the Project alignment.</p> <p>Construction noise impacts have been modelled in accordance with the Department of Transport and Main Roads' Transport Noise Management Code of Practice: Volume 2 - Construction Noise and Vibration. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment – Construction and Road Traffic. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations.</p> <p>Operational noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 17 of Appendix W: Noise and Vibration Assessment - Railway Operations. The development and implementation of such measures will be subject to further studies in the detailed design stage and verification of noise levels during initial operations.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p> <p>The railway noise assessment included a detailed calculation and prediction of noise levels at individual sensitive receptors, including the buildings and property at the Brookstead State School. The assessments identified that noise management and mitigation measures would be required to reduce and control the potential noise from the construction and operation of the Project and achieve the assessment criteria at the most affected sensitive receptors.</p> <p>The attenuation measures at Brookstead include the potential for railway noise barriers to screen the noise from future railway operations. The predicted railway noise levels with the concept noise barriers show a substantial reduction in noise could be achieved, including at Brookstead State School. The revised draft EIS discusses a range of additional reasonable and practicable mitigation measures to reduce and control noise where these predictions identify relevant noise level criteria are unlikely to otherwise be met and noise related impacts could be experienced (Section 16 of Appendix W: Noise and Vibration Assessment - Railway Operations).</p> <p>The Project's Social Impact Assessment SIMP within Section 17.6, Table 17-41 of Chapter 17: Social, outlines the detailed design commitments. ARTC and/or the construction contractor will consult with Department of Education and Yelarbon, Brookstead and Southbrook Central State Schools to:</p> <ul style="list-style-type: none"> Confirm the location of the rail alignment, road-realignments and associated laydown areas and access tracks. Describe the construction schedule and the nature of road-rail interface treatments, temporary disruptions to traffic, any disruptions to school bus routes and traffic management measures e.g. supervised crossings, traffic flow and speed control measures or relocation of pedestrian pathways. Conduct an audit of the affected schools to determine in-corridor or at-property treatments to mitigate operational rail noise impacts, e.g. façade treatments, fence treatments or air conditioning. Confirm all relevant school bus services to enable consultation with the operators. Identify any specific considerations (e.g. off-campus sports or activities) that should be considered in the Project's RUMP and Traffic Management Plan. <p>Agree to the communication process between ARTC and school communities during the construction works stage. The construction contractor will:</p> <ul style="list-style-type: none"> Commence implementation of management measures relating to schools as agreed during the detailed design stage. Ensure that all schools and community facilities in the potentially impacted communities are aware of the construction program and are provided with regular updates about road closures and roadworks. Engage with schools in response to any complaints regarding construction impacts on amenity (e.g. dust), and work with them to find satisfactory solutions. <p>ARTC has engaged with Department of Education (Old) and has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. ARTC will continue to work with the Department during the detailed design stage to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. Information about consultation with the Department can be found in Appendix E: Consultation Report, Section 5.6. ARTC will monitor noise levels through construction and operation of this Section of the Project, as well as ongoing engagement with residents and the school to manage noise and vibration in impacts through Brookstead.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Table 17-41</p> <p>Appendix E: Consultation Report, Section 5.6</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Section 7</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
252	252.0006	Private - Brookstead	Noise and Vibration		The submitter states that the well-being of the native fauna common to this area will also be disturbed by the movement and noise of machinery during the construction stage of IR. The submitter states that the identified structures, will transform and possibly destroy a considerable part of the vegetation	The submitter highlights the concern of severe impact by the bank to be built by Inland Rail from Longhurst Lane to the overpass over the Yarranlea Road which is a huge structure that will split the habitat and potentially cause severe soil degradation to farms in this area. The submitter states that it will affect the movement of particularly the Koala, but also the other native species.	The noise and vibration codes of practice and standards do not provide meaningful criteria against which impacts to fauna can be assessed. A review of noise and vibration effects to native fauna has been undertaken by the terrestrial ecologists and is discussed in Section 5.2 of Appendix O: Matters of National Environmental Significance, Section 5.2 of Appendix L: Terrestrial and Aquatic Ecology Technical Report, and Section 16.8 of Chapter 16: Noise and Vibration. The review provided discussion on the characteristics of construction and operational noise and ground-borne vibration to describe how such emissions could impact native fauna. The assessment determined that, whilst noise and vibration can be a source of possible impact, the effects of any impacts were not significant.	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.8</p> <p>Section 5.2 of Appendix L: Terrestrial and Aquatic Ecology Technical Report</p> <p>Appendix O: Matters of National Environmental Significance</p> <p>Section 5.2</p>
253	253.0002	Private - Brookstead	Noise and Vibration	construction airborne noise	The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and night-time sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the norther side of the town will also be impacted by the changed living conditions Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.	Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS as discussed in Section 16.10 of Chapter 16: Noise and Vibration. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in of Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> Reducing the charge size by use of delays and reduced charge masses Ensuring adequate blast confinement to minimise the amount of overpressure Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes, including noise impacts. To minimise potential impacts to the community, in particular, community health and wellbeing, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details, see the Border to Gowrie Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
253	253.0003	Private - Brookstead	Noise and Vibration	Mitigation measures	Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.	Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP03) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
255	255.0001	Private - Brookstead	Noise and Vibration	Mitigation measures	The proposed Inland Rail route is in close proximity to the submitters house and the submitter states that ARTC has not conferred with them regarding the magnitude of the noise that will be generated during the construction or operational stages. The submitter highlights that given the identified sources of noise, the stated 11 trains per day and 8 at night; they will experience considerable daytime disruption as well as sleep disturbance which will be exacerbated by the fact that the prevailing night-time winds are from the ESE. The submitter highlights as per Appendix ZZ pg. 62 that the location of the proposed Yarranlea over-pass adjacent to the Yarranlea Road, will create noise and movement during the construction stage. The submitter states that the proposed route situated to the south of the submitters home, will be up to 7.4 m in elevation and that trains will be required to ascend a considerable incline from the west of this location, for some 2 km to reach this point. Indications are that the noise levels will be in excess of acceptable levels and audible for some time. The route is uphill to a point east of the township of Pittsworth, therefore noise will be audible for some distance to the east of the submitters property.	It does not comply with the Terms of Reference set by the Coordinator-General on 16.11.18. The draft EIS is incomplete due to the omission of noise minimization and/or mitigation measures that will not be developed until the detailed design stage. Because of the incomplete nature of the draft EIS as indicated in Table 23.5, it is not feasible that the true noise and vibration impacts on isolated farmsteads and farm enterprises can be determined until all details of the Project footprint have been completed. ARTC has provided insufficient details to identify the true impact this Project will have on rural communities. A review of the entire alignment is necessary to consider a route that will cause less impact on one of the South East Queensland's most closely settled and productive rural areas.	The preferred location for the proposed rail corridor (as presented in the draft revised EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix C of the draft EIS), and the findings of environmental and engineering investigations including community impacts: (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts). The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. ARTC acknowledges the concern from the community that noise and vibration may impact lifestyle and amenity for some sensitive receptors during both the construction works and operations stages of the Project. Construction noise impacts are assessed with respect to applicable and appropriate criteria, in accordance with relevant policies, guidelines and legislation. Construction noise impacts predicted to each sensitive receptor are based on adverse weather conditions, including the worst-case wind direction. The revised draft EIS has made preliminary but conservative predictions of potential construction noise impacts, recommended measures to mitigate construction noise impacts, and described the need for specific reasonable and practical mitigation measures to be nominated and implemented based on a detailed construction noise assessment. Construction noise mitigation measures are recommended in Section 16.10 of Chapter 16: Noise and Vibration and Section 7 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 7
255	255.0002	Private - Brookstead	Noise and Vibration	Modelling	In the map of Yarranlea Receptors Appendix T, (map 32 Figure 17), the location of the submitters home is not identified. The properties sited and identified as receptors are not a true indication of those that will be impacted by noise. The ages of the maps used in this section fail to identify more recently build homes along the route.	It does not comply with the Terms of Reference set by the Coordinator-General on 16.11.18. The draft EIS is incomplete due to the omission of noise minimization and/or mitigation measures that will not be developed until the detailed design stage. Because of the incomplete nature of the draft EIS as indicated in Table 23.5, it is not feasible that the true noise and vibration impacts on isolated farmsteads and farm enterprises can be determined until all details of the Project footprint have been completed. ARTC has provided insufficient details to identify the true impact this Project will have on rural communities. A review of the entire alignment is necessary to consider a route that will cause less impact on one of the South East Queensland's most closely settled and productive rural areas.	The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. The assessment has also updated the Project's sensitive receptor set in accordance with the Interim Guideline, which identifies the receptors that can be potentially sensitive to noise and vibration from railway operations. The description of the various sensitive receptors referenced from the Interim Guideline are detailed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 5 and Appendix A. The sensitive receptors included in the assessment of railway noise and vibration are also detailed in this section. ARTC has used the latest building data, aerial imagery, and land use information to identify sensitive receptors within the EIS study area. ARTC acknowledges the concern from the community that some sensitive receptors were missed during the initial phase of the noise and vibration modelling. ARTC is now confident that all sensitive have now been identified for use in the revised draft EIS. The presence of submitter's address can be verified from the receptor set used in the report. If however, the address is outside the 2 km study area, this would not be covered by the assessment. Based on the submitter's provided address, it appears that this is outside the 2 km study area. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 16. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction stages of the Project. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 5 Section 16 Appendix A
26	26.0007	Private	Noise and Vibration	Mitigation measures	ARTC has stated residences within 1 km of the Project will experience a night-time noise of above 49 dB.	Every residence within 1 km should have noise mitigation at property including noise barrier walls and earthworks. Also, ARTC should pay the decrease in property value as a result of noise, which can be calculated by an impartial valuer appointed by Toowoomba Regional Council.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17
3	3.0001	Private	Noise and Vibration	Directly impacted landowner	Concerned about the noise and ground vibration and the implications for their 120 year old Railway Station house (former Greenhill Station) which is located 75 m from Inland Rail line.	Property treatment (insulation) for noise mitigation.	The revised draft EIS has been updated to address potential impacts from noise and vibration at the sensitive receptors along the Project alignment. The assessments consider noise and vibration that could occur during the construction of the Project, changes to the local road network, and the future railway operations. Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. All permanent noise mitigation will be in place prior to the commencement of operations. The revised draft EIS Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13 and Section 14 discusses that based on the proximity of the sensitive receptors to the rail corridor, the assessment has identified that the potential ground-borne vibration and ground-borne noise levels would comply with the Interim Guideline criteria at all sensitive receptors. Notwithstanding, if there are potential ground-borne noise impacts confirmed during detailed design, a range of vibration control measures, could be investigated to dampen the vibration energy at source and reduce the potential for vibration induced impacts at nearby sensitive receptors. Prior to construction commencing, the Principal Contractor, will undertake dilapidation surveys on selected properties along the Project alignment, to assess structural integrity of buildings and related infrastructure. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 13 Section 14 Section 17
32	32.0005	Private	Noise and Vibration	Local business and industry procurement	Concern about impacts to tourism at Yelarbon. Submission notes that Yelarbon have just won an award for their recently completed silo art Project and now the train will be travelling in front of it.	ARTC should need to take some financial responsibility for the loss in trade of tourism operators along the track. This could take the form of sound mitigation or grants to individual operators to diversify away from activities or to a group such as the Goondwindi Chamber of Commerce or Council. There is an opportunity to do some good and get some positive media by building a noise mitigation wall and painting it with a complimentary mural to the one on the silos.	ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie Landscape and Visual Amenity (LVIA) Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment Technical Report, Section 8.2. The existing viewpoint assessments and visualisations provided in the revised draft EIS for Viewpoint 3: Yelarbon rest area has been updated to include the provision of noise walls to communicate potential visual impacts associated with these, noting that the location and height of proposed potential noise walls are subject to further detailed design. An additional site visit was undertaken in October 2021 to assess the potential impact of views from the GrainCorp silo artwork viewing area (Viewpoint 4). As a result, an additional viewpoint assessment has been included within Appendix K: Landscape and Visual Assessment, Section 8.2.4 and Section 9.1.4. This viewpoint assessment includes a visualisation showing the potential impact of noise walls and other Project infrastructure in this location. In addition, an artist's impression showing the potential for mitigation measures in this location to reduce the visual impact/improve visual amenity has been prepared, noting that this is indicative only and the delivery of mitigation measures are subject to detailed design and liaison with relevant landowners and Regional Councils to ensure compliance with detailed site constraints (e.g. fragile vegetation zone requirements and sightlines) that cannot be resolved at this stage. ARTC is investigating the design for the noise walls to determine whether satisfactory noise mitigation can be achieved without obscuring views to the silos. If views to the Yelarbon silos were affected by noise walls, ARTC would facilitate provision of mitigation measures, e.g. a complementary mural on the noise wall and/or roadside landscaping, in consultation with the Yelarbon community and Goondwindi Shire Council. Additional noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4 Chapter 16: Noise and Vibration Section 16.10 Appendix K: Landscape and Visual Impact Assessment Technical Report Section 8.2 Section 8.2.4 Section 9.1.4 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
34	34.0002	Private	Noise and Vibration	Mitigation measures	Concern as to why obligation under Mandatory Part 4.4 of the Queensland Development Code do not need to be met and that this is grossly inadequate and unfair given someone building a category 2 house in the vicinity of railway has to follow the same guidelines to mitigate noise. Submission notes that under the code, they would be classified as a category 2 property.	The ARTC should be held to the same standard as any developer wishing to build next to Railway Land and have to provide the upgrades necessary in the Mandatory Part (MP) 4.4 of the Queensland Development Code (QDC) to meet the required mitigation levels for the category. Submitters house fall under category 2 because of the maximum noise level of 78 and they should need to provide 30dB of mitigation in my habitable rooms or else buy the property at market value. Mitigations involve reducing the rail noise by 30 decibels in habitable rooms by a combination of sound absorbing materials on the roof (Concrete or terracotta tile or metal sheet roof with sarking, plasterboard ceiling at least 10 mm thick fixed to ceiling cavity, mineral insulation or glass wool insulation at least 50 mm thick with a density of at least 11 kg/ m3), external walls (at least 100 mm of concrete of brick masonry), floors, entry doors (solid core with acoustically rated seals) and window glazing with 10 mm thick laminated glass with acoustically rated seals.	Operational noise and vibration modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments. QDC MP4.4 does not apply to infrastructure providers such as Inland Rail. Comparison of the requirements of MP4.4 against the Project is inconsistent with the approach defined in the Interim Guideline to define potential impacts. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17
35	35.0001	Private	Noise and Vibration	Modelling	Concern about inconsistencies in noise modelling. It says in Section 1.2 that Border to Gowrie will ultimately be used to accommodate trains 3600 m long, but when modelling train noise (appendix T, Table 22), vibration (appendix T, Table 22), traffic impact (Appendix X Section 6.4.3.1) and Air Quality (Appendix O, Section 5.3.1.1 and Appendix O Table 2.4), all modelling has been conducted with trains a maximum of 1800 m long. This effectively invalidates 7 chapters and associated appendices of the draft EIS which may have underestimated social impacts by as much as 100%.	Withdraw the EIS until it is internally consistent. The Coordinator General should insist the entire draft EIS be reformulated and submitted with models based upon a 3600 m train, or else limit the track to 1800 m trains in Queensland in perpetuity.	The current design only allows for 1,800 m long trains to utilise Inland Rail, therefore the assessment only considers trains of 1,800 m length. This is further detailed in Chapter 5: Project Description, Section 5.4.1 and as it relates to the operational railway noise assessment in Appendix W: Noise and Vibration Assessment Railway operations, Section 1.	Chapter 5: Project Description Section 5.4.1 Appendix W: Noise and Vibration Assessment - Railway Operations Section 1

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
45	45.0004	Private	Noise and Vibration	Baseline/background sampling	Trigger level set by ARTC for the noise is too high and not in line with local government recommendations or Queensland Development Code. Housing in this area was built for a non-urbanised level of background noise, and was not constructed with the knowledge it would be next to a railway corridor, therefore all noise is unmitigated. ARTC is only encouraged to mitigate noise if the maximum noise exceeds 85decibels. The disparity in these requirements is unjust. The Coordinator general should make approval conditional on the ARTC being held to the same standards in QLD Development Code MP4.4.	ARTC needs to take all possible measures to mitigate sound for affected dwellings, regardless of cost. Apply the criteria from the QDC for Building in Railway corridors and require ARTC to make the same upgrades to walls, roofs, windows, doors and floors as described in the code.	<p>The revised draft EIS has been updated to address potential impacts from operational railway noise and vibration to sensitive receptors along the Project alignment. The revised modelling has been undertaken in accordance with the Department of Transport and Main Roads' Interim Guideline – Operational Railway Noise and Vibration (March 2019). The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. QDC MP4.4 does not apply to infrastructure providers such as Inland Rail. Comparison of the requirements of MP4.4 against the Project is inconsistent with the approach defined in the Interim Guideline to define potential impacts.</p> <p>The assessment methodology of noise and vibration from the railway operations is comprehensively explained in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 4. As part of the assessment, a detailed noise prediction model was developed for the calculation of airborne railway noise levels from rollingstock operations and associated sources of noise, including idling trains at crossing loops, and level crossings (assessed separately). Railway noise modelling is further described in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 6. The revised modelling outputs are discussed in Chapter 16: Noise and Vibration, Section 16.8 and Appendix W: Noise and Vibration Assessment - Railway Operations, Sections 7, 8 and 10.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations of the railway.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 4</p> <p>Section 7</p> <p>Section 8</p> <p>Section 6</p> <p>Section 10</p> <p>Section 17</p>
058a	58a.0008	Private - Brookstead	Noise and Vibration	operational rail noise	<p>The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents due to the on-going noise and vibration from the rolling stock combined with additional signals form alarm bells and train horns, resulting in daytime disruptions and nighttime sleep disturbance. The height of structures over the Oakley to Pittsworth Road and Lochabar Road will mean that operational Noise will be disturbingly audible to more residents than have been identified in the Noise Abatement Section of the EIS Appendix T 15.4.4.</p> <p>The 5 laybys of varying area to be located in close proximity to the township, will result in considerable machinery movements, another source of noise and dust and a potential impediment to the movement of local traffic.</p> <p>Vibration of a train of the length and tonnage has not been quantified.</p> <p>Vibration and noise that will affect the entire town population, during the driving of piles to the required depth.</p>	<p>Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.</p>	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Chapter 2: Project Rationale (Section 2.8), the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>ARTC acknowledges that active level crossings can be a source of railway noise, such as train horns and audible alarms signals. DTMR's - Interim Guideline operational Railway Noise and Vibration excludes level crossings from the noise assessments and mitigation of noise on the grounds they are safety warning devices that use sound as a critical function to maintain safety for road users and pedestrians; however, ARTC has assessed noise impacts from active level crossings and reported this separately in the revised draft EIS. The revised draft EIS discusses further noise mitigation measures, including options to control noise from alarm bells and train horns, refer to Section 16.10 within Chapter 16: Noise and Vibration, Railway Noise Assessment.</p> <p>Ground-borne vibration is assessed in Appendix W: Noise and Vibration Assessment - Railway Operations, Section 13. An assessment of ground-borne vibration was undertaken to identify where railway induced vibration and its effects may be a potential source of impact. The ground-borne vibration levels associated with train movements were assessed to achieve the relevant vibration criteria at all sensitive receptors. It is identified that any receivers within 12 m from the alignment has potential to exceed the human comfort criteria. Further assessment of these impact is recommended during the detailed design stage to verify the screening assessment outcomes.</p> <p>ARTC acknowledges that during the EIS stage may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details refer to the Border to Gowrie Social Impact Management Plan within Section 17.6 of Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Section 17.6</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Section 24.9.9</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 13</p> <p>Section 17</p>
058a	58a.0009	Private - Brookstead	Noise and Vibration	construction airborne noise	<p>The inland rail route extends along the entire northern boundary of Pittsworth; it will severely impact on all residents during the construction stage, resulting in daytime disruptions and nighttime sleep disturbance. Significant proportion of retirees on the north side of the town, their lifestyle and well-being will be totally disrupted, particularly during the construction stage. Families with young children living on the northern side of the town will also be impacted by the changed living conditions. Reference is made to construction Noise 14.4.3. Residents would be unaware of the noise and vibration they will experience from blasting especially from the Broxburn site.</p>	<p>Review the entire alignment, this route is not suitable. The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.</p>	<p>ARTC acknowledges the concerns of the Pittsworth community regarding the potential for noise and vibration to impact lifestyle and amenity during the construction works stage. As noted in the Strategic Options Assessment within Section 2.8 of Chapter 2: Project Rationale, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to the community, stakeholders and properties. Regarding the proposed solution, the preferred location for the proposed rail corridor (as presented in the draft EIS) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community.</p> <p>The construction noise and vibration impacts provided in the revised draft EIS are conservative predictions of unmitigated worst-case construction noise and vibration levels based on a preliminary construction methodology. Reasonable and practicable measures to minimise construction impacts will be implemented based on community consultation and a detailed assessment of construction noise and vibration impacts during the detailed design stage of the Project. Mitigation has been included in the revised draft EIS as discussed in Section 16.10 of Chapter 16: Noise and Vibration. Construction impacts are temporary in nature and will subside as construction activities progress away from the area.</p> <p>The noise assessment criteria, adopted from the DTMR's Codes of Practice, are designed to manage impacts to amenity and annoyance. Furthermore, the assessment has identified the maximum noise levels to support the review of mitigation measures to address impacts such as sleep disturbance. In accordance with DTMR's CoP Vol 2, reasonable and practical noise mitigation and management measures have been presented in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project.</p> <p>Blasting impacts have been assessed in accordance with CoP Vol 2. Blasting criteria have been adopted from CoP Vol 2 and AS2187.2. These criteria are listed in Section 16.6 of Chapter 16: Noise and Vibration, Blasting Criteria.</p> <p>The following measures to mitigate blasting impacts are suggested where practicable as part of Section 16.10, Chapter 16: Noise and Vibration:</p> <ul style="list-style-type: none"> ▶ Reducing the charge size by use of delays and reduced charge masses ▶ Ensuring adequate blast confinement to minimise the amount of overpressure ▶ Avoiding secondary blasting where possible. The use of rock breakers or drop hammers may be an acceptable alternative. ▶ Avoiding blasting during heavy cloud cover or during strong winds blowing towards sensitive receptors ▶ Establishing a blasting timetable through community consultation, with blasts times negotiated with surrounding sensitive receptors. ▶ Residents, occupants and other stakeholders within 1 km radius of a blast location (or wider, if deemed appropriate by pre-blast assessment) will be notified a minimum of three calendar days in advance of a blast occurring. <p>ARTC acknowledges that the EIS phase may have caused stress and anxiety for some stakeholders, due to concerns about property acquisitions, amenity impacts, property values or environmental changes, including noise impacts. To minimise potential impacts to the community, in particular, community health and well-being, ARTC has partnered with various Private Health Networks and other community organisations to provide additional and ongoing assistance. For specific details, see the Border to Gowrie Social Impact Management Plan within Chapter 17: Social.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.6</p> <p>Section 16.10</p> <p>Chapter 17: Social</p> <p>Chapter 24: Draft Outline Environmental Management Plan</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17</p>
058a	58a.0010	Private - Brookstead	Noise and Vibration	Mitigation measures	<p>Noise Barriers illustrated, lack detail and the maps used are old, detail is lacking in terms of the dimensions of the indicated barriers. The location of noise barriers shown on the two maps are open to question as far as possible effectiveness is concerned. Barriers illustrated in Option 2 would be totally inadequate.</p>	<p>Draft EIS is incomplete due to the omission of noise minimisation and/or mitigation measures that will not be developed until detailed design stage.</p>	<p>ARTC acknowledges the concerns from the community that noise and vibration has the potential to impact lifestyle and amenity during railway operations. During the community engagement process, noise, vibration, and visual obstruction have been identified as potential negative impacts to the community along the Project alignment. Refer to Section 5.6 and 5.10 of Appendix E: Consultation Report. The revised draft EIS has been updated to provide additional details on noise mitigation measures, including the proposed concept noise barriers (Section 16.10, Chapter 16: Noise and Vibration).</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction of the Project. This analysis will consider all design, engineering, environmental and social factors that determine the location, extent, and height of the noise barriers (or similar structures). In particular, the investigations will need to carefully consider aspects such as flooding and the management of surface water, wind loading, visual amenity and safety within and outside the railway corridor.</p> <p>In addition, ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA Study Area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP03) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04). It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. fragile vegetation zone requirements and sightlines) that cannot be resolved at this stage.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment</p> <p>Section 10.5.4</p> <p>Chapter 16: Noise and Vibration</p> <p>Section 16.10</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Section 5.10</p> <p>Appendix K: Landscape and Visual Impact Assessment</p> <p>Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p> <p>Section 17.4</p>
058a	58a.0011	Private - Brookstead	Social Impact Assessment	Property Devaluation	<ul style="list-style-type: none"> ▶ Due to retirees lifestyle and well-being impacted, their relocation to an aged-care facility will see the family home value for which they have relied on for future funding, dramatically reduced or unsaleable. ▶ Families with young children living on the northern side of the town will be impacted by real estate devaluation. 	<p>Review the entire alignment, this route is not suitable.</p>	<p>The Terms of Reference for the revised draft EIS require that the selected alignment is assessed.</p> <p>The revised draft EIS is unable to provide advice on individual property values. Property owners' concerns about the potential for impacts on the value of their properties is acknowledged in Appendix X: Social Impact Assessment, Section 7.1.9. As noted, property values may be affected by a range of factors related or unrelated to the Project. Any Project impacts on property values would differ between properties with respect to e.g. Current land use, distance to the rail alignment, location in relation to any impacts experienced, and buyers' views on impacts such as noise, versus proximity to e.g. employment centres.</p>	<p>Appendix X: Social Impact Assessment</p> <p>Section 7.1.9</p>
058a	58a.0012	Private - Brookstead	Stakeholder engagement		<p>ARTC has failed to engage with residents and inform them of the impacts of the train noise and vibration.</p>	<p>The true noise and vibration impact on the community cannot be determined until all details of the Project footprint have been completed. ARTC provide scant details that fail to identify the true impact this Project will have on urban areas like Pittsworth.</p>	<p>ARTC has updated noise and vibration modelling during the development of the revised draft EIS. Details of the noise and vibration modelling can be found in Chapter 16: Noise and Vibration and Appendix V: Noise and Vibration Assessment – Construction and Road Traffic and Appendix W: Noise and Vibration Report - Railway operations.</p> <p>The updated noise and vibration assessments have been presented to the Inner Darling Downs Community Consultative Committee (IDCCCC) and Southern Darling Downs Community Consultative Committee (SDCCCC).</p> <p>ARTC has shared the results of the noise modelling and potential mitigation strategies with sensitive receivers, as outlined in Appendix E: Consultation Report, Section 5.6 and will continue to engage with these stakeholders. ARTC will consider noise walls or barriers and/or earth mounds at the rail corridor boundary at Yelarbon, Brookstead and Pittsworth, where it can be demonstrated that the mitigation can effectively control noise at groups of sensitive land uses and receptor buildings. Whether noise barriers would be a reasonable and practicable noise mitigation strategy will be determined by ARTC during detailed design.</p> <p>ARTC will continue to engage with the community about noise and vibration impact and mitigation measures throughout the detailed design, construction works and operations stages of the Project.</p>	<p>Chapter 16: Noise and Vibration</p> <p>Appendix V: Noise and Vibration Assessment - Construction and Road Traffic</p> <p>Appendix E: Consultation Report</p> <p>Section 5.6</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005a	5a.0010	Private	Project alignment	Infrastructure crossings/ interaction	B2G summary of findings states that the Inland Rail will maximise the use of existing corridors, however it does not.	Take the line to the deep water port of Gladstone. Keep the line inland so as not to have to climb or descend too much. Miles is a good area for a hub, a days drive from the Brisbane city and 10 hours from Toowoomba. A line already exists between Toowoomba and Brisbane which will cease to be used when the Acland mine shuts, so an arterial line could be built from Miles to Toowoomba could be an option.	<p>The vast majority of freight carried on Inland Rail (on a net tonne kilometre basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to Border to Gowrie. This is also available in Sections 2.8.2.9 and 2.10 in Chapter 2: Project Rationale.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Appendix E: Consultation Report
005a	5a.0011	Private	Land Use and Tenure	Severance of agricultural land	B2G summary of findings states that the Inland Rail will:	The State forest is available in the right direction.	<p>Mitigation measures that have been factored into the reference design, or otherwise implemented during the reference detailed design stage for the Project are described in Chapter 8: Land Use and Tenure, Section 8.6.1 and include:</p> <ul style="list-style-type: none"> The Project has been aligned to be co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes Where possible the Project footprint is located adjacent to property boundaries to reduce potential fragmentation and sterilisation of agricultural land Refinement of the horizontal alignment considered placement of the Project footprint such that it traverses along, or as close as possible to, property boundaries to reduce potential fragmentation and sterilisation of Class A land, Class B land and land within an IAA The Project footprint has been established to provide the minimum-sized area required to safely and efficiently construct, maintain and operate the Project Where stock routes have been intersected by the Project footprint, design solutions have been proposed that allow for the continuity of stock movement. <p>In addition, as stated in Chapter 8: Land Use and Tenure, Section 8.5.4, Table 8-46, further refinement of the horizontal alignment during detailed design and alignment of the permanent footprint will occur such that it traverses along, or as close as possible to, property boundaries, to reduce potential fragmentation and sterilisation of Class A and Class B land. Impacts such as severance or loss of land that may have the potential to impact operations of agricultural businesses will be considered by the constructing authority in the terms of the acquisition agreements.</p> <p>With regards to the use of State Forests, traversing State Forest has been minimised in balance with other environmental impacts. As described in Chapter 2: Project Rationale Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations.</p> <p>Where the Project requires land to be acquired for the permanent footprint within a State forest, partial revocation of the State forests in accordance with the Forestry Act 1959 (Qld) will be required to enable the future gazetted of rail corridor over the same land.</p> <p>Notwithstanding, during detailed design stage, the Project footprint will be further refined to that which is required to safely construct, operate and maintain the Project, which will include minimising property acquisition requirements, property severance and disruption to land use and transport networks. This wording has been included in Chapter 8: Land Use and Tenure, Table 8-51, as a clarification in the revised draft EIS.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.1 Table 8-46 Table 8-51 Appendix E: Consultation Report
005a	5a.0012	Private	Land Use and Tenure		B2G summary of findings states that the Inland Rail will:	Nil.	<p>Mitigation measures that have been factored into the reference design, or otherwise implemented during the reference design stage for the Project are described in Chapter 8: Land Use and Tenure, Section 8.6.1 and include:</p> <ul style="list-style-type: none"> The Project is co-located with existing rail and road infrastructure where possible, minimising the need to develop land that has not previously been subject to disturbance for transport infrastructure purposes. Where possible the Project footprint is located adjacent to property boundaries to reduce potential fragmentation and sterilisation of agricultural land The Project footprint has been established to provide the minimum-sized area required to safely and efficiently construct, maintain and operate the Project. Where stock routes have been intersected by the Project footprint, design solutions have been proposed that allow for the continuity of stock movement. <p>In addition, as stated in Chapter 8: Land Use and Tenure, Section 8.5.4, Table 8-46, further refinement of the horizontal alignment during detailed design and alignment of the permanent footprint will occur such that it traverses along, or as close as possible to, property boundaries, to reduce potential fragmentation and sterilisation of Class A and Class B land. Impacts such as severance or loss of land that may have the potential to impact operations of agricultural businesses will be considered by the constructing authority in the terms of the acquisition agreements. The Project footprint will be further refined to that which is required to safely construct, operate and maintain the Project, which will include minimising property acquisition requirements, property severance and disruption to land use and transport networks (Chapter 8: Land Use and Tenure, Table 8-51).</p> <p>ARTC will continue to work with directly affected landowners to develop and implement property-specific measures to mitigate impacts on properties that could affect agricultural enterprises.</p>	Chapter 8: Land Use and Tenure Section 8.5.4 Section 8.6.1 Table 8-46 Table 8-51
005a	5a.0013	Private	Flora and Fauna		B2G summary of findings states that the Project will avoid sensitive environmental and social areas, however it has not and the Project has not even looked to achieve this. The Project puts the track straight through essential habitat for Koalas and Other wildlife Tortoises and lizards of different types in Southbrook.	Nil.	<p>The current alignment of the Project falls within portions of the Southern Freight Rail Corridor, a designated transport corridor. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and revised draft EIS Appendix O: Matters of National Environmental Significance Report.</p> <p>As the Project moves into the detailed design and construction stages, more focused and comprehensive ecological surveys will be undertaken. Along with informing the design and construction, these will include specific measures to avoid, mitigate, minimise impacts on Koala, along with ongoing monitoring activities (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report and revised draft EIS Appendix O: Matters of National Environmental Significance Report). Where impacts cannot be avoided (e.g. Clearing of remnant vegetation or habitat for a threatened species), mitigation and management measures will be implemented. In instances where a significant residual impact as identified by the relevant EPBC Act significant assessment criteria, biodiversity offsets will be secured (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report and revised draft EIS Appendix O: Matters of National Environmental Significance Report).</p> <p>Appendix P: Fauna Connectivity Strategy has also been prepared for the Project, which identifies the location of proposed fauna crossing opportunities for species such as Koala. Opportunities to incorporate fauna infrastructure at other potential crossing points (such as large culverts) will be considered during the detailed design process and in the Wildlife Connectivity Plan that will be prepared. Opportunities for the provision of fauna fencing and fauna movement solutions have been identified. These include fencing strategies to guide species such as Koala to safe movement opportunities. These opportunities will be refined through the detailed design process and incorporated where appropriate (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report).</p>	Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Report Appendix P: Fauna Connectivity Strategy
005a	5a.0014	Private	Flora and Fauna	Koala	B2G summary of findings states that the Project will avoid sensitive environmental and social areas, however it has not and the Project has not even looked to achieve this. The Project puts the track straight through essential habitat for Koalas and Other wildlife Tortoises and lizards of different types in Southbrook.	Nil.	<p>Since the draft EIS was released for public submission ARTC has undertaken additional ecology surveys. The basis of these surveys was used to avoid and reduce Project impacts to ecological values through design refinement as shown in Appendix B3: Changes to Reference Design since draft EIS.</p> <p>Mitigation measures have been developed and outlined in the Section on vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report. In addition, a fauna connectivity strategy has been prepared for the Project (Appendix P: Fauna Connectivity Strategy), which identifies the location of proposed fauna crossing opportunities for species such as Koala.</p> <p>The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross-drainage and rail maintenance access roads. Habitat for threatened species (including the Condamine Earless Dragon) has been avoided wherever possible (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report and revised draft EIS Appendix O: Matters of National Environmental Significance Report).</p> <p>Where impacts to threatened species habitat cannot be avoided, mitigation and management measures will be implemented. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, during both the construction works and operations stages. Impact mitigation will include pre-clearance surveys prior to disturbance. Management and mitigation measures to protect vulnerable and endangered species are proposed in Chapter 24: Draft Outline Environmental Management Plan.</p> <p>In instances where a significant residual impact as identified by the relevant EPBC Act significant assessment criteria, biodiversity offsets will be secured (revised draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report and revised draft EIS Appendix O: Matters of National Environmental Significance Report). ARTC will provide biodiversity offsets in accordance with the relevant state or commonwealth legislation and guidelines. ARTC's approach to delivering environmental offset requirements is outlined in Appendix Q: Environmental Offset Delivery Strategy.</p>	Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Chapter 24: Draft Outline environmental Management Plan Appendix B3: Changes to reference design since draft EIS Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Report Appendix P: Fauna Connectivity Strategy Appendix Q: Environmental Offset Delivery Strategy
005a	5a.0015	Private	Project alignment		The route selection as has been pointed out on numerous occasions is farcical. Just a simple study of the map shows that Toowoomba region is not enroute from Melbourne to Brisbane It is up the range and nearly as north as Brisbane and should never have been considered. The cost of fuel alone and the speed the train will have to use to take it up and down the range when speed was one of the main factors of this route.	A line already exists between Toowoomba and Brisbane which will cease to be used when the Acland mine shuts so an arterial line could be built from Miles to Toowoomba could be an option.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one from the New South Wales border to Brisbane via Toowoomba and the other via Warwick and Rathdowney (Chapter 2: Project Rationale, Section 2.8.2). The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/ revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>In 2015, the Inland Rail Implementation Group (IRIG) endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017 (Chapter 2: Project Rationale, Section 2.9.3).</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment was to be progressed through phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General. The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006-2020 (ARTC, 2020d), where pages 83 to 95 relate specifically to Border to Gowrie and Appendix 4 (pp. 109-116) provides a detailed history of routes via Warwick that have been considered over time.</p>	Chapter 2: Project Rationale Section 2.8.2 Section 2.9.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005a	5a.0016	Private	Project alignment		B2G summary of findings states that the Project will avoid challenging topography and geological conditions, which it certainly has not. The choice of the Southbrook route takes it adjacent to the highest point on the map before Toowoomba but it is too high for what the ARTC need meaning they are going to gouge a huge V in this and 17 m or more down when there is a suitable gully only a few hundred meters north of it.	Avoid topography and geological conditions. Take the line to the deep water port of Gladstone keep the line inland so as not to have to climb or descend too much. For the Southbrook route, consider using the suitable gully only a few hundred meters north of the current alignment.	<p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs the outcomes of the multi-criteria analysis (MCA). <p>As noted in Chapter 2: Project Rationale, Section 2.9.3, the alignment around the Pittsworth area was selected due to better technical viability and construction feasibility, and fewer impacts to community, stakeholder, and properties.</p> <p>Chapter 2: Project Rationale, Figure 2-28, shows that alignment OPT2 (blue) largely aligns with the submitter's suggested route and follows the edge of the study area outside Pittsworth and Southbrook townships.</p> <p>Based on local topographical constraints, the OPT2 alignment generated circa twice the volume of earthworks compared to the reference design alignment that parallels the Gore Highway where possible. Supported by the MCA process, ARTC note, relative to the alternative alignments investigated through this area, the reference design reduced its exposure to the challenging topography. Additionally, the reference design creates a multi-modal transport corridor that offers significant benefits in greenfield environments including co-location of major transport infrastructure, less earthworks, less farms with severance impact and less overland flow path crossings. Chapter 2: Project Rationale, Section 2.8 and 2.10 presents outcomes of the Option 1 and Option 2 assessments.</p> <p>The vast majority of freight carried on Inland Rail (on a net tonne kilometre basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.9.3</p> <p>Section 2.10</p> <p>Figure 2-14</p> <p>Figure 2-15</p> <p>Figure 2-28</p> <p>Appendix E: Consultation Report</p>
005a	5a.0017	Private	Traffic and Transport	operational traffic	B2G summary of findings states that the Project will optimise railway operations. For the line travelling in Queensland, this is not true. Just a simple study of the map shows that Toowoomba region is not enroute from Melbourne to Brisbane It is up the range and nearly as north as Brisbane and should never have been considered. The cost of fuel alone and the speed the train will have to use to take it up and down the range when speed was one of the main factors of this route.	A line already exists between Toowoomba and Brisbane which will cease to be used when the Acland mine shuts so an arterial line could be built from Miles to Toowoomba could be an option.	<p>Chapter 2: Project Rationale (Section 2.8-2.10) of the revised draft EIS describes the route selection process for the proposal. Furthermore, ARTC has also released a broader Inland Rail route analysis documented in Melbourne to Brisbane Inland Rail Route History 2006-2019 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.8</p> <p>Section 2.9</p> <p>Section 2.10</p>
005a	5a.0018	Private	Traffic and Transport	operational traffic	Toowoomba is too close to be a freight hub. No one will load a truck and drive it to Toowoomba and stop 2 hours from the port of Brisbane only to pay to have the goods unloaded and loaded on the rail then reloaded at Acacia Ridge and unloaded and reloaded at the Port. Even a transport company in Toowoomba will not do that they will simply drive the goods to the port. Assuming Toowoomba as a hub is illogical.	Take the line to the deep water port of Gladstone keep the line inland so as not to have to climb or descend too much Miles is a good area for a hub a days drive from the Brisbane city 10 hours from Toowoomba.	<p>The vast majority of freight carried on Inland Rail will be bulk container freight destined for domestic intermodal terminals and further distributed throughout South East Queensland as outlined in Section 2.2 of Chapter 2: Project Rationale. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently.</p> <p>At a regional level, the Project has the potential to catalyse development by stimulating business and industry development at the Toowoomba Enterprise Hub in Wellcamp. By providing efficient transport access to intrastate and interstate markets, the Project may act as a catalyst for further private sector investment in this area, particularly for freight and logistics operations. The further development of the Toowoomba Enterprise Hub has the potential to unlock greater economic activity in the region, such as through promoting greater international export opportunities via Wellcamp Airport.</p> <p>Supply chain operators, including train operators, aim for the most efficient means of transport possible and that is achieved by having trains that consist of freight for specific markets (i.e. domestic or export markets), rather than trains with a mixture of both. One intermodal reference train, with 40% of wagons double-stacked, can carry the same volume of freight as 110 heavy trucks so any apparent advantage in trucking time saving would diminish relative to the volume of product carried by a single train consist over time (Section 2.2 of Chapter 2: Project Rationale).</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.2</p>
005a	5a.0019	Private	Project alignment	operational traffic	The route should not be considered because the fuel to traverse the range with thousands of tons of freight will eat up fuel, have ongoing costs cost and result in unnecessary wear. This will be ongoing forever, costing millions extra.	Take the line to the deep water port of Gladstone keep the line inland so as not to have to climb or descend too much.	<p>ARTC acknowledges the commentary relates to the broader Inland Rail business case and alignment in Queensland, outside of scope of the Border to Gowrie EIS. For completeness, the following response has been provided. More information on Project rationale can be found in Chapter 2: Project Rationale.</p> <p>Australia's population is predicted to increase by 60 per cent over the next 40 years, with high levels of growth in South-East Queensland metropolitan Brisbane and Melbourne. Australia will need a reliable and efficient rail network to meet the increasing freight needs and take the strain off already congested road networks. Further information on future freight demand is provided in Chapter 2: Project Rationale, Section 2.2.</p> <p>Trains currently run to the Port of Brisbane and will continue to do so once Inland Rail is operational; however, trains accessing the Port of Brisbane will not be required to be double stacked as they will be transporting bulk freight such as coal or grain for export. The Australian Government and Queensland Government are undertaking a joint study of options and requirements for port/rail connections that will consider current and future demand and the relationship with the Inland Rail Project.</p> <p>Coal is currently railed along the Queensland Rail West Moreton Line to the Port of Brisbane. The 2015 Inland Rail Program Business Case forecast that coal and minerals will account for circa 25 per cent of the forecast total traffic that will be carried on Inland Rail (on a net tonne kilometre basis (NTK basis)). The majority of freight carried on Inland Rail (on a NTK basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout South East Queensland. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail Alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. 	<p>Chapter 2: Project Rationale</p> <p>Section 2.2</p>
005a	5a.0020	Private	Economics		This track will not make a profit until 2062. ARTC has recently asked for 5 billion more and now we have been told they do not envisage coal being carted on the line for years to come. Coal made up a great proportion of the income for the line which basically means this track will never make a dime. Also, the costing did not allow for any track down time or rebuild, which will happen in the next 40 years or more, as well as allowance for building the hubs at either end.	Nil.	<p>All assumptions relating to demand modelling, including the connection to the Port of Brisbane and intermodal terminals, and revenue are considered in the Inland Rail Programme Business Case (2015). As such the revised draft EIS reflects the information contained in the Business Case and does not include any new assumptions.</p> <p>In regards to coal, for the purposes of the economic benefit assessments contained within the Inland Rail EIS, freight movements from coal demand have been excluded. This approach is consistent with the cost benefit analysis completed for the Inland Rail Programme Business Case (2015). With specific reference to the cost benefit analysis results for the scenarios "No Western Line Upgrade", extracted from the Inland Rail Programme Business Case (2015) Chapter 9: Land Resources. Economic Analysis, where coal benefits are equal to zero (0).</p> <p>The reference design for the Project has an engineering design life of 100 years and it is based on industry best practice. The costs associated for any track down time or rebuild cannot form part of the economic impact assessment and are not required to be assessed as part of the final Terms of Reference for the Project.</p>	<p>Chapter 18: Economics</p> <p>Section 18.7</p> <p>Appendix Y: Economic Impact assessment</p> <p>Section 5.3</p>
005a	5a.0021	Private	Social Impact Assessment		Putting the track near the highway disturbs all of those living in the towns. Submission notes that the track between Brookstead and Toowoomba is the only portion of the track that follows a highway for approximately 20 km. It follows the Gore highway bringing into play the Towns of Pittsworth and Southbrook. The highway was built to service the patrons of the towns.	Nil.	<p>Revised draft EIS Appendix X: Social Impact Assessment, Section 1.2, notes the alignment follows the existing rail line through Brookstead, minimising the need for additional land acquisition.</p> <p>In locating the rail line to the north of Pittsworth rather than following the existing rail line, the Project sought to minimise impacts on Pittsworth and its residents. The Project alignment diverts from the existing rail line to avoid the township of Southbrook. Other towns are avoided with the exception of Yelarbon on the existing rail line.</p> <p>The revised draft EIS Terms Of Reference require that the selected alignment is assessed. The EIS is unable to comment on an alternative alignment.</p> <p>Impacts on the road network are assessed in Section 5.0 of Appendix AA: Traffic Impact Assessment.</p>	<p>Appendix AA: Traffic Impact Assessment</p> <p>Section 5.0</p> <p>Appendix X: Social Impact Assessment</p> <p>Section 1.2</p>
005a	5a.0022	Private	Social Impact Assessment	Local business and industry procurement	Submission notes that the patrons of Miles need extra employment. This will be encouraged if the alignment is routed through to Gladstone.	Take the line to the deep water port of Gladstone keep the line inland.	<p>The revised draft EIS Terms of Reference require that the selected alignment is assessed. The EIS is unable to comment on an alternative alignment.</p>	N/A
005a	5a.0023	Private	Traffic and Transport	Infrastructure crossings/ interaction	Implied impacts to existing infrastructure. Brisbane is busy enough and the only way you can build in Brisbane is by knocking down existing infrastructure.	Nil.	<p>Trains currently run to the port and will continue to do so once Inland Rail is operational; however, trains accessing the Port of Brisbane will not be required to be double stacked as they will be transporting bulk freight such as coal or grain for export, which utilise wagons as opposed to containers (Section 2.2 of Chapter 2: Project Rationale). The Australian Government and Queensland Government are undertaking a joint study of options and requirements for port/ rail connections that will consider current and future demand and the relationship with the Inland Rail Project.</p>	<p>Chapter 2: Project Rationale</p> <p>Section 2.2</p>
005b	5b.0024	Private	Groundwater	Private groundwater bore/ s	All bores in the region are necessary even if they are not for huge irrigation Projects and putting a rail line in the area may affect the water flow to these lesser bores which may make a property unliveable if this water flow or quality is affected. These bores may not be within close proximity to the line.	ARTC should be conditioned to list all bores in within what could be an effected area. Distance from line should be decided by an "independent body of hydrologists". All bores should be tested for quality and quantity before and after the works have been carried out. Should there be any changes to either this should be rectified financially or physically.	<p>Revised draft EIS Figures 15.27-15.29 of Chapter 15: Groundwater presents the groundwater modelling results and registered bores in proximity to the deep cuts expected to result in groundwater drawdown. Appendix U: Groundwater Technical Report of the revised draft EIS presents registered bores located within the Project footprint to be decommissioned, their reported aquifer, reported depth, and location. These figures and Table have been updated in the revised draft EIS.</p> <p>As part of the revised draft EIS, predicative groundwater models were developed to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts. The indicative cuts for modelling were selected as best representing the local geological conditions and worst-case potential impacts (cuts most likely to intersect groundwater). Modelling results in the revised draft EIS indicate only localised drawdown around the vicinity of deep cuts that intercept groundwater, with a predicted maximum extent of drawdown extending up to 43 m from the rail centreline. Modelling indicates impact to be wholly contained within the Project footprint, with no regional groundwater drawdown/ wider impact on the aquifer as a result of the Project. The models were updated to reflect the refined alignment and design as part of the revised draft EIS and the results are presented in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.5.</p> <p>Bores required to be decommissioned within the Project footprint or access restricted as a result of the Project will have 'make good' measures agreed in consultation with the landholder (see Section 8.2 (Table 8.2) of Appendix U: Groundwater Technical Report for the make-good process). As modelling has indicated drawdown will likely extend a maximum of 43 m horizontally from the deepest cut, impacts to bores outside the Project footprint is unlikely. Groundwater monitoring will continue throughout the construction works and operations stages of the Project to monitor for potential adverse impacts as a result of the Project.</p> <p>An independent technical advisor has been engaged to review the assessment of groundwater drawdown as described in the revised draft EIS.</p>	<p>Chapter 15: Groundwater</p> <p>Section 15.6.2</p> <p>Figure 15.27</p> <p>Figure 15.28</p> <p>Figure 15.29</p> <p>Appendix U: Groundwater Technical Report</p> <p>Section 6.3.5</p> <p>Section 8.2</p> <p>Table 8.2</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005b	5b.0025	Private	Groundwater		Concern about groundwater flow if the Project affects groundwater flow and quality.	ARTC should be conditioned to list all bores in within what could be an affected area. Distance from line should be decided by an "independent body of hydrologists". All bores should be tested for quality and quantity before and after the works have been carried out. Should there be any changes to either this should be rectified financially or physically.	As part of the revised draft EIS, predicative groundwater models were developed to assess potential groundwater drawdown due to interception of groundwater and resulting drainage within the cuts (Project elements considered to potentially impact on groundwater). The indicative cuts were selected as best representing the local geological conditions and worst-case potential impacts (cuts most likely to intersect groundwater). The draft modelling results indicated that the extent of drawdown may extend up to 43 m from the centre of the Project alignment (from the deepest cuts) in that cut area. The modelling was updated to reflect the revised alignment and design as part of the revised draft EIS and the results are presented in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.5. Figures 15.27-15.29 of Chapter 15: Groundwater visually demarcate the anticipated extent of drawdown. As stated in the revised draft EIS Chapter 15: Groundwater, Table 15-17, minor groundwater mounding may occur below significant embankments and compressible material. However, the depth to groundwater along the Project alignment is typically > 5 m BGL, which reduces the likelihood of potential mounding. Minor risk of mounding is noted in areas of fractured MRV where the fractured rocks are hydraulically connected to flooded alluvial units. Baseline groundwater monitoring has been undertaken to develop a representative baseline dataset for comparative purposes to assess any potential deterioration of water quality and level change resulting from the Project (Chapter 15: Groundwater, Section 15.4.2 and 15.4.4). The baseline groundwater dataset, in addition to regular groundwater monitoring during the construction works and operations stages of the Project (quality and levels), will allow for trend analysis and the early detection of groundwater changes.	Chapter 15: Groundwater Section 15.4.2 Section 15.4.4 Section 15.6.2 Figure 15.27 Figure 15.28 Figure 15.29 Table 15-17 Appendix U: Groundwater Technical Report Section 6.3.5
005c	5c.0026	Private	Social Impact Assessment	operational rail noise	Concern that alignment disturbs one major town and village unnecessarily. Submission notes that the map used in the Section, notably 15.16 you can quite clearly see that from Brookstead to Toowoomba the ARTC has chosen the rail line follow the road closely. At no other areas on the map does following the road happen if as you can quite clearly see the road does not go directly to its destination namely Toowoomba. The Gore highway deviates from the straight line and goes past Pittsworth and Southbrook. These are one major town and one large village that will be effected by the railway line unnecessarily. Submission further notes that this alignment will result in all the Towns folk of Pittsworth and Southbrook being disturbed x number of times a night.	The line from Brookstead to Toowoomba should be straightened out and for passing loops that are planned to be moved to a less populated area.	Appendix X: Social Impact Assessment, Section 1.2 notes the alignment is located on the existing rail line on the southern border of Brookstead, minimising the need for additional land acquisition. In locating the rail line to the north of Pittsworth rather than following the existing rail line, the Project sought to minimise impacts on Pittsworth and its residents. The Project alignment diverts from the existing rail line to avoid the township of Southbrook. Additionally, Appendix X: Social Impact Assessment, Section 7.1 notes the potential for rail noise and changes to local scenic character for Brookstead, Pittsworth and Southbrook residents. Management measures as detailed in the Outline Environmental Management Plan are intended to address noise and scenic amenity impacts, where mitigations of noise exceedances or scenic amenity impacts are triggered. Appendix X: Social Impact Assessment, Section 8.5.8 (Table 8.12) notes that ARTC will engage with GRC and TRC to identify partnership opportunities to address impacts on local character and the amenity of these towns, and develop a Community Wellbeing Plan which will include measures to offset amenity impacts. Appendix W: Noise and Vibration Assessment - Railway Operations, Section 10 found that the predicted noise levels from the crossing loops were well within the ARTC noise management criteria and would be substantially lower than the railway noise levels from the daily train pass-by events on the adjacent main line.	Appendix X: Social Impact Assessment Section 1.2 Section 7.1 Section 8.5.8 Table 8.12
005c	5c.0027	Private	Flora and Fauna		Concern that the alignment from Brookstead to Toowoomba will impact the abundance of gums and trees in the area. Submission notes that this route takes the line past the highest point next to Toowoomba which is designated as essential habitat.	The line from Brookstead to Toowoomba should be straightened out. This will ensure that unnecessary earth moving is negated.	Chapter 11: Flora and Fauna states that the alignment has been refined to avoid sensitive vegetation, areas with known threatened flora and fauna communities and key habitat areas, where practicable. The alignment was developed in consultation with the community (Section 2.8 of the revised draft EIS Chapter 2: Project Rationale). The Brookstead alignment was moved approximately 40 m south. The alignments from Yarranlea and Southbrook and Southbrook to Athol were revised to minimise interactions with constraints including challenging topography and geotechnical conditions and environmentally sensitive areas. The alignment from Athol to Gowrie Mountain reduces the amount of earthworks and drainage needed, impacts fewer private properties and will have shorter length within floodplains (Section 2.9 and 2.10.14 of Chapter 2: Project Rationale). The alignment for Warrego Highway to Gowrie Junction was revised to have a shorter length, less hydrological impact and traverses fewer properties (Section 2.9 and 2.10.15).	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10.14 Section 2.10.15 Chapter 11: Flora and Fauna
005c	5c.0028	Private	Flora and Fauna	Koala	Concern that the alignment from Brookstead to Toowoomba will impact the Koala population in the area.	The line from Brookstead to Toowoomba should be straightened out. This will ensure that unnecessary earth moving is negated.	Chapter 11: Flora and Fauna, states that the alignment has been refined to avoid sensitive vegetation, areas with known threatened flora and fauna communities, and key habitat areas, where practicable. The alignment was developed in consultation with the community (Chapter 2: Project Rationale, Section 2.8). The Brookstead alignment was moved approximately 40 m south. Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report. Refer to Appendix B3: Changes to reference design since draft EIS to reflect the alignment maturity. The alignments from Yarranlea to Southbrook and Southbrook to Athol were revised to minimise interactions with constraints including challenging topography and geotechnical conditions and environmentally sensitive areas (revised draft EIS Chapter 2: Project Rationale, Section 2.10.12 and 2.10.13, respectively). The alignment from Athol to Gowrie Mountain reduces the amount of earthworks and drainage needed, impacts fewer private properties and shorter length within floodplains. The alignment for Warrego Highway to Gowrie Junction was revised to have a shorter length, less hydrological impact and traverses fewer properties.	Chapter 2: Project Rationale Section 2.8 Section 2.10.12 Section 2.10.13 Chapter 11: Flora and Fauna Appendix B3: Changes to Reference Design since draft EIS Appendix E: Consultation Report Section 5.1
005c	5c.0029	Private	Project alignment		This Brookstead to Toowoomba route takes the line past the highest point next to Toowoomba making it such a high point that the line has to be gouged out of the landscape by 35 Meters down causing a 2 in 1 v shaped crevice of over 150 m wide. This area also has several gum trees on which the Koala population is surviving.	The line from Brookstead to Toowoomba should be straightened out. This will make the line more economical it will take the line away from Pittsworth and Southbrook. This will also mean that the alignment will not have to take in the Hill at 2980 Gore Highway ensuring that all that unnecessary earth moving is negated.	The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were: <ul style="list-style-type: none">ability to enhance the Inland Rail service offeringconstruction and operating coststhe outcomes of the multi-criteria analysis (MCA). Figure 2.15, Chapter 2: Project Rationale is a summary of the MCA outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC MCA tool, which is used across Inland Rail's program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes: <ul style="list-style-type: none">environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions)community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts)approvals and stakeholder engagement: 12.5 per centtechnical viability: 17 per centsafety: 16.5 per centconstructability: 12.5 per centoperations: 16.5 per cent. The alternative route that has been put forward in the submission would result in increased impacts to state forest, would still intercept a similar length of the Condamine floodplain and does allow the Project to maximise the use of existing brownfield corridors.	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005d	5d.0030	Private	Project alignment		Submission notes that rationale for route does not make sense. Submission notes that the alignment through Toowoomba makes no sense because of its elevation and because it is not a straight line to the Port of Brisbane. This results in greater fuel consumption due to elevation.	If it is necessary to bring goods to Toowoomba, utilise existing lines not being used.	<p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ▶ ability to enhance the Inland Rail service offering ▶ construction and operating costs ▶ multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> ▶ environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) ▶ community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) ▶ approvals and stakeholder engagement: 12.5 per cent ▶ technical viability: 17 per cent ▶ safety: 16.5 per cent ▶ constructability: 12.5 per cent ▶ operations: 16.5 per cent. <p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development (Section 2.8.2 of Chapter 2: Project Rationale).</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route.</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General (Section 2.9.3 of Chapter 2: Project Rationale). The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the revised draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Section 2.9.3 of Chapter 2: Project Rationale). Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The broader Inland Rail route analysis is documented in Melbourne to Brisbane Inland Rail Route History 2006:2020 (ARTC, 2020d) document, where pages 83 to 95 relate specifically to Border to Gowrie.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.8.2 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
005d	5d.0030	Private	Project alignment	Directly impacted landowner	Concern about inconsistency in rationale as to why current routes were chosen, resulting in impacts to landowners. Submission notes that farms and landowners are impacted due to the straight alignment and supposed need for speed (24hr transit time), further noting that other sections of the rail do not align with this rationale. Submission notes that the alignment through Toowoomba makes no sense because of its elevation and because it is not a straight line to the Port of Brisbane. The need for the tunnel also results in slowing down of services, further demonstrating the lack of consistency in rationale.	A thorough investigation should be carried out as to why the routes were chosen and how the reasoning they use for one portion of the line does not carry over to the next. More sensible routes would be through Gladstone Port or Warwick (for speed). Either route will negate the need to climb the range, which would otherwise result in higher fuel consumption.	<p>ARTC acknowledges the commentary relates to the broader Inland Rail business case and alignment in Queensland, outside of scope of the Border to Gowrie EIS. For completeness, the following response has been provided. More information on Project Rationale can be found in Chapter 2: Project Rationale.</p> <p>Australia's population is predicted to increase by 60 per cent over the next 40 years with high levels of growth in South-East Queensland, metropolitan Brisbane and Melbourne. Australia will need a reliable and efficient rail network to meet the increasing freight needs and take the strain off the already congested road network. Future freight demand is discussed in Chapter 2: Project Rationale, Section 2.2.</p> <p>Trains currently run to the port and will continue to do so once Inland Rail is operational; however, trains accessing the Port of Brisbane will not be required to be double stacked as they will be transporting bulk freight such as coal or grain for export. The Australian Government and Queensland Government are undertaking a joint study of options and requirements for port/ rail connections that will consider current and future demand and the relationship with the Inland Rail Project.</p> <p>Coal is currently railed along the Queensland Rail West Moreton Line to the Port of Brisbane. The 2015 Inland rail Programme Business Case forecast that coal and minerals accounts for circa 25% of the forecast total traffic that will be carried on Inland Rail (on a net tonne kilometre basis (NTK basis)). The vast majority of freight carried on Inland Rail (on a NTK basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ. Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> ▶ Reduce demand to use IR by 50 per cent ▶ Reduce IR revenue by 60 per cent ▶ Reduce the Inland Rail Benefit Cost Ratio by 80 per cent 	Chapter 2: Project Rationale Section 2.2 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
005d	5d.0031	Private	Social Impact Assessment		Concern about impacts to communities, particularly Pittsworth and Southbrook due to Project alignment. Submission notes that this alignment was only chosen in order to service the nearby airport.	Submission notes that original route from Goondiwindi to Toowoomba was a more sensible route, possible implication to revert to this alignment.	<p>The revised draft EIS Terms Of Reference require that the selected alignment is assessed.</p> <p>Appendix X: Social Impact Assessment, Section 1.2 notes in locating the rail line to the north of Pittsworth rather than following the existing rail line, the Project sought to minimise impacts on Pittsworth and its residents. The Project alignment diverts from the existing rail line to avoid the township of Southbrook. Appendix X: Social Impact Assessment includes assessment of impacts on Pittsworth and Southbrook.</p>	
005d	5d.0032	Private	Flora and Fauna	Koala	Concern about impacts to Koala habitat due to alignment being routed through the Millmerran flood plain.	Submission notes that original route from Goondiwindi to Toowoomba was a more sensible route, possible implication to revert to this alignment.	<p>Chapter 2: Project Rationale, Section 2.9 and 2.10.10 describes that the alignment through Millmerran follows an existing QR corridor, which is found to be an appropriate option as it utilises an existing corridor rather than greenfield alternatives. The benefits of this alignment include:</p> <ul style="list-style-type: none"> ▶ Shortest route to traverse the Condamine floodplain ▶ Eliminates need for two railway corridors in the area ▶ Minimises loss of highly productive farmland. <p>Chapter 11: Flora and Fauna states that the alignment has been refined to avoid sensitive vegetation, areas with known threatened flora and fauna communities, and key habitat areas, where practicable.</p> <p>Since the draft EIS was released for public notification, a number of alignment changes have been made in response to direct engagement with various State and Commonwealth agencies, public submissions on the draft EIS, and engagement with key stakeholders and community groups. This engagement has been recorded in Appendix E: Consultation Report, Consultation Outcomes. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p>	Chapter 2: Project Rationale Section 2.9 Section 2.10.10 Chapter 11: Flora and Fauna Appendix B3: Changes to Reference Design since draft EIS

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005d	5d.0033	Private	General Project opinion - negative		Submission posits that the alignment was routed close to the airport because of the influence of a wealthy individual who managed to change all zoning regulations in the area. Submission posits that there are many dishonest people with their own agendas influencing the route.	Nil.	<p>In the 2010 Inland Rail Alignment Study (IRAS), two main route options were considered for Inland Rail in Queensland, one going to Brisbane via Toowoomba and the other via Warwick and Rathdowney. The outcome of this study noted that while the option via Warwick provided some reduction in transit time, the route via Toowoomba had lower capital cost and significantly higher demand/ revenue. The Toowoomba route was therefore preferred. Since the 2010 IRAS, it has also become evident that the Toowoomba option is better positioned to take advantage of economic growth opportunities, such as the developing Charlton-Wellcamp precinct and the InterlinkSQ intermodal development.</p> <p>The Inland Rail Implementation Group (IRIG) in 2015 endorsed the 2010 IRAS alignment via Toowoomba, noting that this would also enable use of the Gowrie to Grandchester transport corridor protected by the Queensland Government. ARTC took this concept alignment and refined it during 2015 and 2016, with the route by October 2016 being known as the Base Case (Modified) route (Section 2.8 of Chapter 2: Project Rationale).</p> <p>In October 2016, the Australian Government determined that there would be an assessment of four rail alignment corridors between Yelarbon and Gowrie.</p> <p>Corridor 1: Base Case (Modified) from Yelarbon to Gowrie via Millmerran and Mt Tyson</p> <p>Corridor 2: Base Case (Modified) with a deviation to pass close to Wellcamp and Charlton</p> <p>Corridor 3: Yelarbon to Gowrie via Karara, Leyburn and Felton</p> <p>Corridor 4: Yelarbon to Gowrie via Karara, Clifton and Wyreema and utilising the existing rail line close to Warwick</p> <p>The corridor assessment process was conducted by independent consultants Aurecon and AECOM and overseen by the Yelarbon to Gowrie Project Reference Group (PRG) that was established by the Australian Government in November 2016. The PRG consisted of community and industry representatives with an independent Chair, Mr Bruce Wilson AM, appointed by the Government. The assessment work was summarised in the Corridor Options Report dated 21 April 2017 and made publicly available by the Australian Government on 21 September 2017.</p> <p>Following the completion of the Corridor Options Report for Border to Gowrie in 2017, the Australian Government announced the base case via Wellcamp Charlton alignment forming the centreline of a two-kilometre-wide study area was to be progressed through phase 2 'feasibility design' and draft EIS submission to the Queensland Coordinator-General (Section 2.8 of Chapter 2: Project Rationale). The Government-determined two-kilometre-wide study area is referenced within Chapter 2: Project Rationale of the draft EIS which describes the route selection process for the proposal, both before and after confirmation of the study area.</p> <p>ARTC has worked with stakeholders throughout phase 2 'feasibility design' to refine the two-kilometre-wide study area to a focused area of investigation (varying between 150 metres (m) to 1000 m wide depending on certainty) and finally, to a proposed rail corridor and construction footprint (available on social pinpoint and via landowner maps). This included discussing proposed design developments and options at local council and state government meetings, face-to-face meetings with affected landowners, town hall meetings, community consultative committees (Inner Darling Downs CCC and Southern Darling Downs CCC), drop-in sessions and regular updates via eNews, Project newsletters, regional print advertisements, and updates to the Inland Rail website.</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. 	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Appendix E: Consultation Report
005d	5d.0034	Private	Stakeholder Engagement	Aquatic fauna	Submission raises concern that information was inaccurate and withheld from an independent review body, which resulted in the ceasing of further investigations about the forestry route. Submission notes that most landholders wanted this investigation.	A thorough investigation should be carried out as to why the routes were chosen and how the reasoning they use for one portion of the line does not carry over to the next.	<p>An assessment by ARTC on the potential merits of a forestry alignment along the powerline easement west of Inglewood indicated that this corridor was not viable for the Inland Rail. Consequently, this option was not considered as part of the corridor review undertaken by Department of Infrastructure and Regional Development (DIRD) in 2015-16.</p> <p>As detailed in Chapter 2: Project Rationale, in July 2018, ARTC received a request from Goondiwindi Regional Council to consider an alternative alignment through the state forest. It was concluded that the alternative alignment performed less favourably in achieving the Inland Rail Service Offering (Section 2.10.5 of Chapter 2: Project Rationale).</p> <p>In 2020, at the request of the Deputy Prime Minister, ARTC prepared the Inland Rail Information Paper, which considered alternative Project alignments via Whetstone State Forest and Cecil Plains (Section 2.9.3 of Chapter 2: Project Rationale). It was concluded that the alternative alignment would result in a longer distance and transit time, increased costs, a greater number of businesses and residences within 200 m of the alignment, and potential delays in Project delivery timeframes. The methodologies employed in the Information Paper were reviewed by GTA Consultants and were found to be suitable. Further information on the stakeholder engagement supporting route selection and alignment planning is detailed in: Route history of Inland Rail 2006-2021 - Inland Rail (accessible from artc.com.au)</p>	Chapter 2: Project Rationale Section 2.9.3 Section 2.10.5 Appendix E: Consultation Report Section 3
005e	5e.0035	Private	Social Impact Assessment	Local business and industry procurement	Concern about permanent impacts to communities and business including financial losses. Submission attributes this to the noise and filth of the railway line, and animal fatalities from trains running through properties. The gradient and design of this tunnel ensures no livestock can be transported on the line.	The number of families affected by taking the route through green field sites, unnecessarily close to towns (particularly Pittsworth and Southbrook) should be considered, with the use of an independent assessor.	<p>The Project alignment has been designed with consideration to minimising property acquisition which would result in impacts on residents and communities. The Project's alignment avoids town centres with the exception of Yelarbon where the existing rail line is located through the town.</p> <p>Appendix X: Social Impact Assessment, Section 7.1.2 notes the number of residential dwellings requiring affected households to relocate based on the proposed revised reference design and consultation with landowners to date.</p> <p>The rail line would be fenced to avoid interaction with livestock Chapter 5: Project Description, Section 5.4.12. Wildlife crossings are provided as part of the Project to minimise impacts on wildlife refer Section 5.4.12 Fauna fencing and crossings and Table 5-19 in Chapter 5: Project Description.</p>	Chapter 5: Project Description Section 5.4.12 Table 5-19 Appendix X: Social Impact Assessment Section 7.1.2
005e	5e.0036	Private	Social Impact Assessment	Directly impacted landowner	Concern about permanent impacts to communities including quality of life and the home environment. Submission attributes this to noise and filth of the railway line.	The number of families affected by taking the route through green field sites, unnecessarily close to towns (particularly Pittsworth and Southbrook) should be considered, with the use of an independent assessor.	<p>The Project alignment diverts from the existing rail line to avoid the township of Southbrook. Where noise exceedances are predicted, noise mitigation measures will be implemented as noted in revised draft EIS Chapter 16: Noise and Vibration, Section 16.10.</p> <p>The results of the air quality assessment of Project operations, Appendix R: Air Quality Technical Report, Section 5.4, indicate that cumulative background plus Project air quality pollutants would below guideline levels at all sensitive receptors.</p> <p>The Project alignment has been designed with consideration to minimising property acquisition which would result in impacts on residents and communities. Appendix X: Social Impact Assessment, Section 7.1.2 notes the number of residential dwellings requiring affected households to relocate based on the proposed revised reference design and consultation with landowners to date.</p>	Chapter 16: Noise and Vibration Section 16.10 Appendix R: Air Quality Technical Report Section 5.4 Appendix X: Social Impact Assessment Section 7.1.2
005e	5e.0037	Private	Social Impact Assessment	Land acquisition/ compensation	Concern about loss in property values for properties close to the railway line. Submission highlights that some properties would not receive compensation because they are not physically affected but are impacted in other ways (such as social impacts).	All affected property owners i.e. (within the 2K corridor) should be offered a fair price for their properties whether they are officially affected or not.	<p>Property acquisitions will be undertaken by DTMR as the Acquiring Authority. DTMR will negotiate acquisitions and compensation in accordance with the Acquisition of Land Act 1967. This includes compensation for reasonable legal costs, valuation or other professional fees, costs related to purchase of replacement comparable land, storage and removal costs and other reasonable financial costs incurred that are a direct consequence of the resumption of the land (Appendix X: Social Impact Assessment, Section 7.1.2).</p> <p>Where properties are affected by noise exceedances, noise mitigations measures would be triggered. There is no legislative requirement to pay compensation for a loss in value unless land is acquired from a property.</p> <p>Appendix X: Social Impact Assessment, Section 8.5.3 acknowledges that the Project has resulted in stress and anxiety for some landowners and residents. In addition to the ongoing community engagement process which aims to provide information and enable consideration of landholders' concerns, ARTC has invested in a mental health partnership to enable people affected by the proposed Project to access mental health support services.</p> <p>ARTC will also provide supporting information for people who need to relocate, including referral to DCHDE housing support programs where necessary.</p>	Appendix X: Social Impact Assessment Section 7.1.2 Section 8.5.3
005e	5e.0038	Private	Groundwater	Private groundwater bore/ s	Concern about impacts to bore water due to rail alignment and the requirement for excavation works near submitters property. Submitter claims this will impact on their ability to care for cattle on their property.	All affected property owners i.e. (within the 2K corridor) should be offered a fair price for their properties whether they are officially affected or not.	<p>The location of the alignment was selected in part as it is located within the existing Southern Freight Rail Corridor, gazetted as a future rail corridor in 2010. However, some excavations will be required to achieve a suitable grade for operation of freight rail line. Groundwater drawdown as a result of seepage in excavations (deep cuts which intersect groundwater) is anticipated to be limited to the immediate vicinity of deep cuts. Groundwater modelling conducted as part of the draft EIS indicated drawdown will likely only extend a maximum of 43 m horizontally from the deepest cut. This modelling was revised as part of the revised draft EIS and is included in Chapter 15: Groundwater, Section 15.6.2 and Appendix U: Groundwater Technical Report, Section 6.3.</p> <p>The predicted impacts are expected to be temporary (construction works stage) and localised to the deep cuts that intersect groundwater.</p>	Chapter 15: Groundwater Section 15.6.2 Appendix U: Groundwater Technical Report Section 6.3

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
005e	5e.0039	Private	Project alignment	Aquatic fauna	Concern about the process undertaken for the EIS by ARTC for consideration of options and determining rail alignment. Submission notes that despite the current alignment being the cheaper option than the forestry route, the Project still required to ask for \$5 billion more.	The number of families affected by taking the route through green field sites, unnecessarily close to towns (particularly Pittsworth and Southbrook) should be considered, with the use of an independent assessor.	<p>Figure 2.15, Chapter 2: Project Rationale is a summary of the multi-criteria analysis (MCA) outcomes that were documented in the Corridor Options Report (AECOM, 2017b). The process for this comparative assessment of the four route options is shown in Figure 2.14. As described in Chapter 2: Project Rationale, Section 2.8-2.10, a comprehensive review and assessment of potential alignment options was undertaken. The design development process used a combination of technical assessments and the ARTC multi-criteria analysis (MCA) tool, which is used across Inland Rails program of works. The option selection and design process considered the issues raised during consultation with relevant stakeholders (as described in Appendix E: Consultation Report), and the findings of environmental and engineering investigations. The weighted criteria in the MCA tool includes:</p> <ul style="list-style-type: none"> environmental impacts: 12.5 per cent (including potential ecological, visual, noise and vibration, flooding and water impacts, and the effect on air quality and greenhouse gas emissions) community impacts: 12.5 per cent (including property impacts, Aboriginal and non-Aboriginal heritage, land use and economic impacts) approvals and stakeholder engagement: 12.5 per cent technical viability: 17 per cent safety: 16.5 per cent constructability: 12.5 per cent operations: 16.5 per cent. <p>Subsequent to the submission of the draft EIS to the Coordinator-General, the then Deputy Prime Minister, in May 2020, instigated a review of alternative Project alignments via Whetstone State Forest and Cecil Plains. The Department of Infrastructure, Transport, Regional Development and Communications, engaged an independent consultant (GTA Consultants) to conduct the review, which considered, inter alia, information provided by ARTC and confirmed that the information provided was prepared on a 'like-for-like' basis. The review concluded that the alternative alignment would result in a longer distance and transit time, increased construction, operating and maintenance costs, a greater number of businesses and residences within 200 metres of the alignment, and potential delays in Project delivery timeframes. The Australian Government released the report in November 2020 (Section 2.9.3 of Chapter 2: Project Rationale). Please refer to the Inland Rail B2G Alternative Route Comparison Review for further details (inlandrail.gov.au/understanding-inland-rail/publications-and-reports).</p> <p>The preferred location for the proposed rail corridor (as presented in the revised draft EIS, Chapter 2: Project Rationale, Section 2.8 and 2.9) was identified based on an analysis of multiple corridor options, with the preferred alignment presenting the strongest benefits for industry, environment and the community. The three key considerations in investigating the proposed rail corridor options and selecting the preferred rail corridor were:</p> <ul style="list-style-type: none"> ability to enhance the Inland Rail service offering construction and operating costs multi-criteria analysis (MCA). <p>Chapter 2: Project Rationale, Figure 2-28, shows that alignment OPT2 (blue) follows the edge of the study area outside Pittsworth and Southbrook townships. Based on local topographical constraints, the OPT2 alignment generated circa twice the volume of earthworks compared to the reference design alignment that parallels the Gore Highway where possible. Supported by the MCA process, ARTC note, relative to the alternative alignments investigated through this area, the reference design reduced its exposure to the challenging topography. Additionally, the reference design creates a multi-modal transport corridor that offers significant benefits in greenfield environments including co-location of major transport infrastructure, less earthworks, less farms with severance impact and less overland flow path crossings. Chapter 2: Project Rationale, Section 2.9 and 2.10 presents outcomes of the Option 1 and Option 2 assessments.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	Chapter 2: Project Rationale Section 2.8 Section 2.9 Section 2.9.3 Section 2.10 Figure 2.14 Figure 2.15 Figure 2.28 Appendix E: Consultation Report
005e	5e.0040	Private	Flora and Fauna	Koala	Suggests realignment, better justification for current alignment, assessment by independent assessor, and better compensation for affected property owners.	Alignment will traverse essential Koala habitat on the submitter's property.	<p>Since the submission of the draft EIS, ARTC has developed a number of key documents including the Appendix P: Fauna Connectivity Strategy, Appendix M: Draft Koala Management Plan and Appendix N: Draft Fauna Management Plan. These documents will be appendices for the revised draft EIS.</p> <p>Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during both the construction works and operations stages. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report. Chapter 24: Draft Outline Environmental Management Plan include management and mitigation measures to protect vulnerable and endangered species. Strategies to encourage cross-rail movement of fauna and to prevent the injury and mortality of fauna from train collision are contained in Appendix P: Fauna Connectivity Strategy.</p>	Chapter 24: Draft Outline Environmental Management Plan Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix N: Draft Fauna Management Plan Appendix P: Fauna Connectivity Strategy
005f	5f.0041	Private	Air Quality		Concern about air quality impacts during construction, particularly deposition of particulate matter at concentrations of PM10, dust odours and volatile organic compounds (from fuel tanks). Submission makes note of serious health effects.	Re-route rail alignment. Taking it a further North to Gladstone an underused Port with a huge capability to increase its load which is also a deep water port meaning larger ships can be accommodated and they then start the journey nearer to their destination only seems sensible.	<p>The scope of the revised draft EIS is to assess the route selected by the Australian Government as detailed in Chapter 2: Project Rationale. In Chapter 12: Air Quality, Section 12.5.1, construction dust emissions have been assessed for the potential to impact human health (airborne dust, which can be inhaled) and cause nuisance or amenity impacts (deposited dust). The assessment of construction dust emissions has considered the type of emission sources during construction, the magnitude of the dust emissions expected, and the location of sensitive receptors (households).</p> <p>The implementation of recommended mitigation measures outlined in Chapter 12: Air Quality, Section 12.9, are expected to result in a low or negligible significance impacts to health and nuisance/ amenity by construction dust impacts. Chapter 12: Air Quality, Section 12.9 and Appendix R: Air Quality Technical Report, Section 8.3 also identify and recommend dust management and mitigation measures which are considered to represent best practice environmental management, such as:</p> <ul style="list-style-type: none"> The application of water on unsealed vehicle paths (approximate reduction of 50 per cent) Establish designated stockpile locations within the corridor Installation of rumble grids or similar at locations where construction traffic departs from the construction site and joins the public road network Development of an Air Quality and Dust Management Plan. The management Plan includes the following measures (but not limited to): <ul style="list-style-type: none"> Minimise major dust generating activities Routing roads away from sensitive areas wherever practically possible Restricting vehicle speeds Long-term stockpiled material will be covered or seeded to prevent wind erosion. <p>These management and mitigation measures will be included in the Construction Environmental Management Plan (CEMP) and are included in Chapter 24: Draft Outline Environmental Management Plan for the Project. In addition, an Air Quality and Dust Management Plan will be prepared as part of the CEMP. A further quantitative assessment of potential dust deposition at sensitive receptors from construction activity will be completed in future stages (before construction) when more detailed construction information is available.</p> <p>Impacts of odour and volatile organic compounds (VOC) emissions from non-resident workforce accommodation facility and fuel storage at laydown areas have been assessed in Chapter 12: Air Quality, Section 12.5.1. As discussed in Chapter 12: Air Quality, Section 12.5, a minimum separation distance of 50 metres is recommended for fuel storage tanks to mitigate potential impacts from odour and VOC emissions. The 50-metre minimum separation distance is based on guidance previously provided by Brisbane City Council for service stations for a fuel throughput that is higher (annual throughput of between 1, 2 and 9 megalitres) than expected for the fuel storage tanks (Brisbane City Plan 2014 Service Station Development Code v19). This minimum separation distance can be achieved for all proposed fuel storage areas. Therefore it is expected that health and nuisance impacts associated with emissions from fuel storage will not be significant.</p> <p>Based on the air quality assessment results, the proposed alignment will not result in significant air quality impacts to sensitive receptors, and an alternate alignment is not required for air quality reasons.</p>	Chapter 2: Project Rationale Chapter 12: Air Quality Section 12.5 Section 12.5.1 Section 12.9 Chapter 24: Draft Outline Environmental Management Plan Appendix R: Air Quality Technical Report Section 8.3
005f	5f.0042	Private	Air Quality		Concern about air quality impacts during operation, including coal dust. Submission questions if return trains will be subject to the same controls and veneer spray. Submission notes that ARTC will not be in control of goods transported.	Re-route rail alignment. Taking it a further North to Gladstone an underused Port with a huge capability to increase its load which is also a deep water port meaning larger ships can be accommodated and they then start the journey nearer to their destination only seems sensible.	<p>ARTC presently has no foreseeable market-driven demand for coal to be transported on the Inland Rail network between NSW/QLD border to Gowrie. Therefore, the revised draft EIS has not considered potential emissions or impacts from these sources; however, should this change during operations in the future, the potential for coal dust generation would require management by a Coal Dust Management Plan (CDMP).</p> <p>Should coal be planned to be transported as part of future operations, prior to transportation of coal, engagement would be undertaken with existing stakeholders and members of the South West Supply Chain regarding coal dust management and monitoring requirements necessary to maintain the integrity of the existing South West Supply Chain Coal Dust Management Plan (2019).</p> <p>The air quality assessment investigated the potential impact of emissions from the proposed Project during its operation. The operational air quality assessment determined that the adopted ambient air quality goals established to protect human health and minimise potential nuisance can be achieved for all households (referred to as sensitive receptors in Chapter 12: Air Quality for all pollutant and relevant averaging periods (Chapter 12: Air Quality, Section 12.5.2).</p> <p>Based on the air quality assessment results, the proposed rail alignment will not result in significant air quality impacts to sensitive receptors, and an alternate alignment is not required for air quality reasons. The scope of the revised draft EIS is to assess the route selected by the Australian Government as detailed in Section 2.3 of Chapter 2: Project Rationale.</p>	Chapter 2: Project Rationale Section 2.3 Chapter 12: Air Quality Section 12.3 Section 12.5.2
005f	5f.0043	Private	Project alignment		Submission questions the rationale with the alignment, noting that taking millions of tons of coal through a beautiful city of Brisbane to a shallow water port which is struggling with the coal it has at the moment to only increase the load is ridiculous.	Re-route rail alignment. Taking it a further North to Gladstone an underused Port with a huge capability to increase its load which is also a deep water port meaning larger ships can be accommodated and they then start the journey nearer to their destination only seems sensible.	<p>ARTC acknowledges the commentary relates to the broader Inland Rail business case and alignment in Queensland, outside of scope of the EIS. For completeness, the following response has been provided, where more information on Project Rationale can be found in Chapter 2: Project Rationale.</p> <p>Australia's population is predicted to increase by 60 per cent over the next 40 years with high levels of growth in South-East Queensland, metropolitan Brisbane and Melbourne. Australia will need a reliable and efficient rail network to meet the increasing freight needs and take the strain off the already congested road network. Future freight demand is discussed in Chapter 2: Project Rationale, Section 2.2.2.</p> <p>Trains currently run to the port and will continue to do so once Inland Rail is operational; however, trains accessing the Port of Brisbane will not be required to be double stacked as they will be transporting bulk freight such as coal or grain for export. The Australian Government and Queensland Government are undertaking a joint study of options and requirements for port/ rail connections that will consider current and future demand and the relationship with the Inland Rail Project.</p> <p>Coal is currently railed along the Queensland Rail West Moreton Line to the Port of Brisbane. The 2015 Inland Rail Programme Business Case forecast that coal and minerals accounts for circa 25% of the forecast total traffic that will be carried on Inland Rail (on a net tonne kilometre basis (NTK basis)). The vast majority of freight carried on Inland Rail (on a NTK basis) will be bulk container freight destined for domestic intermodal terminals and further distributed throughout SEQ (Chapter 2: Project Rationale, Section 2.5). Although Gladstone may offer benefits to international exports whose origin is in central Queensland, Brisbane is fundamental to allowing domestic goods to their final destination much faster and more efficiently. The 2010 Inland Rail alignment Study that found terminating at Toowoomba rather than continuing to Gladstone would:</p> <ul style="list-style-type: none"> Reduce demand to use IR by 50 per cent Reduce IR revenue by 60 per cent Reduce the Inland Rail Benefit Cost Ratio by 80 per cent. 	Chapter 2: Project Rationale Section 2.2.2 Section 2.5
006a	6a.0004	Private	Traffic and Transport	construction traffic	ARTC should be conditioned to provide details of road alignment during construction and these details should come back out for public comment.	Provide details of road alignment during construction. These details should be subject to public comment.	<p>ARTC notes that there will be seven road diversions associated with the Project. The detailed road diversion assessment is provided in Section 5.9.4 of Appendix AA: Traffic Impact Assessment. The requirement for temporary roads to facilitate construction will be subject to on-going discussions and agreement with DTMR, relevant Councils and directly affected landowners.</p> <p>The revised draft EIS containing the revised road and rail alignments will be available for public comment.</p>	Appendix AA: Traffic Impact Assessment Section 5.9.4
006a	6a.0005	Private	Traffic and Transport		ARTC should be conditioned to provide details to the public about the increased time for emergency services to attend emergencies because of road closures and rail crossings.	Provide details about increased time for emergency services to attend emergencies because of road closures and rail crossings.	<p>As part of the on-going process, ARTC is working with the relevant emergency service agencies (e.g. QFES, QAS and QPS) to develop protocols and joint working arrangements to address potential impacts on emergency services and service response times during construction works and operations stages, and ensuring that access is retained as required. QPS and QFES have acknowledged the potential impact to their services during construction and operations and are supportive of the Projects proposed approach. The QFES, QAS and QPS will all be consulted to identify suitable emergency access points to the rail corridor in response to emergencies along the rail track.</p> <p>The construction Traffic Management Plan will identify and include secondary/ alternative construction routes which can be used by construction traffic in the event that a primary construction route is blocked by an accident or emergency situation. Where a suitable secondary route is not identified, the movement of construction vehicles will stop until suitable alternative routes are identified and agreed with the relevant road authority.</p> <p>Table 5.69 in Appendix AA: Traffic Impact Assessment provides the individual wait times for the level crossing locations along the alignment. The wait times determined for each individual level crossing were calculated using:</p> <ul style="list-style-type: none"> Level crossing specific operating speeds (up to maximum design speed of 115 km/hr). The operating speed is impacted by topography and curvature of the alignment. Time taken for the train to cross the level crossing Distance from train crossing loops Train length. <p>Consultation with the community and relevant government agencies (inc. emergency services) will continue through the detailed design and construction works stages to ensure that safety concerns and issues are addressed.</p>	Appendix AA: Traffic Impact Assessment Table 5.69

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
006b	6b.0006	Private	Flora and Fauna		There is no evidence to support the claim that the Project has been aligned to minimise impacts on vegetation and habitat.	Nil.	<p>A number of alternative routes for the Project footprint have been considered during the concept assessment stage (from early 2016 to late 2017) (Chapter 2: Project Rationale, Section 2.8 and 2.9) of the Project. In all instances, the guiding principles of ecologically sustainable development have been factored into the assessment and selection of corridor and alignment options for the Project.</p> <p>The Project footprint has been subject to historical disturbance and clearing, with one-third of the alignment length located within brownfield (areas already subject to previous development). The remaining greenfield portions of the Project footprint extend largely through areas subject to agricultural land uses. The nominated rail corridor has been restricted to the land required to accommodate permanent infrastructure components of the railway, including earthworks, cross drainage and rail maintenance access roads. Refer to Appendix B3: Changes to Reference Design since draft EIS to reflect the alignment maturity.</p> <p>Chapter 11: Flora and Fauna, Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report provide strategies that have been used to minimise impacts through the detailed design stage of the Project to avoid habitat for threatened species wherever possible.</p>	<p>Chapter 2: Project Rationale Section 2.8 Section 2.9 Chapter 11: Flora and Fauna Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix O: Matters of National Environmental Significance Report Appendix B3: Changes to Reference Design since draft EIS</p>
006b	6b.0007	Private	Flora and Fauna	Koala	ARTC should be conditioned not to destroy a single Koala tree.	Preserve Koala trees	<p>Post the release of the draft EIS, ARTC has completed additional detailed field surveys across the Project alignment to identify ground-truthed vegetation communities and associated habitats. The most recent field data from the Technical Ecological Assessment from Ausecology (2022) for the Project, as well as recent field surveys for the Project undertaken by Environmental Resources Management (ERM) and University of Sunshine Coast (USC) was used to support the development of the revised draft EIS.</p> <p>Since the submission of the draft EIS, ARTC has developed Appendix M: Draft Koala Management Plan. This document is an appendix for the revised draft EIS and it was developed because of direct engagement with various Commonwealth and State agencies, community conservation groups, Community Consultative Committee meetings and from written submissions received on the draft EIS, as part of the EIS public notification process. Mitigation measures and controls have been factored into the Project to reduce the impact of habitat fragmentation and impacts on fauna populations, including Koalas, during the construction stage. Vegetation clearance will be restricted to the minimum area required to enable the safe and efficient construction, operation and maintenance of the rail corridor, including minimising the disturbance of environmentally sensitive areas. Habitat for threatened species has been avoided wherever possible, as outlined further in Appendix L: Terrestrial and Aquatic Ecology Technical Report and Appendix O: Matters of National Environmental Significance Report.</p> <p>In instances where a significant residual impact has been identified as per the EPBC Act 1999 Significant Assessment Criteria, biodiversity offsets will be secured. ARTC has prepared a revised appendix Q: Environmental Offset Delivery Strategy that outlines the properties that make up the Project offset portfolio and their suitability to acquire significant residual impacts on MNES and MSES. Specifically, see Section 6.7 of Appendix Q: Environmental Offset Delivery Strategy for a summary of how the proposed offset portfolio will acquire the anticipated offset requirements for the Koala to achieve no net loss.</p>	<p>Chapter 11: Flora and Fauna Sections 11.5, 11.6 and 11.7 Appendix L: Terrestrial and Aquatic Ecology Technical Report Appendix M: Draft Koala Management Plan Appendix O: Matters of National Environmental Significance Report Appendix Q: Environmental Offset Delivery Strategy</p>
006c	6c.0008	Private	Stakeholder Engagement	construction traffic	At no time ARTC has contacted us regarding the impact of the Inland Rail line will have on our place and neighbourhood. ARTC should be conditioned to provide details of road re-alignments during construction and these details should be displayed and consulted for public comment. These include:	<p>Provide details of road re-alignments during construction. Details to be subject to public comment and consultation. These include:</p> <ul style="list-style-type: none"> ▶ Re-alignment of Athol School Road ▶ Purcell Rd Athol ▶ Southbrook ▶ Biddeston Rd Southbrook. 	<p>ARTC has engaged with landowners on the Project reference design, including impacts to local roads. Details are included in Appendix E: Consultation Report, Section 5.5, with examples of fact sheets produced for community consultation provided in Section 6.3. Local communities and road users have been engaged and have provided input into road design through Community Consultative Committees, fact sheets, one-on-one landowner meetings, community information sessions, letterbox drops, newsletters, interactive mapping (Social Pinpoint), website and social media, as detailed in Appendix E: Consultation Report.</p> <p>Engagement with stakeholders who are impacted by road changes is ongoing, and will continue through detailed design, further details that during construction a travel demand management awareness campaign will be developed to inform the public of the proposed construction works and its potential effect on local road network operations. The purpose of this awareness campaign would be to relieve congestion by encouraging travel outside of peaks and increase public awareness of planned construction works.</p>	<p>Appendix E: Consultation Report Section 5.5 Section 6.3</p>
082b	82b.0004	State Agency	Economics	Workforce and employment	construction labour availability subsection, 16.6.1.3 p.16.10: The degree or magnitude of construction labour supply constraints at the regional (i.e. study area) level is discussed with reference to the results of a national and state survey. It would be more appropriate to discuss this topic in relation to the regional economic environment, i.e., the region has a relatively small labour force and given that other Projects comprising of the Inland Rail Program will be underway in adjacent regions during the same time period, it is likely that there will be some labour supply shortages for construction workers.	The slack labour market assumption should be reviewed more up to date data should be used to confirm the conclusions are still valid. Changing the modelling to a tight labour market makes a big difference: the employment numbers drop by about two thirds as the price of labour is much higher, for example.	<p>ARTC acknowledges the construction labour supply required for the Project includes technical and specialised skill sets such as engineering capability. The nature of these jobs is quite mobile, where professionals tend to travel to Project sites from major urban centres, interstate and internationally where required. As such, labour market statistics for this supply group are summarised at a national and state level. More general labour market statistics are summarised in Appendix Y: Economic Impact Assessment, Section 5.2 of the revised draft EIS, and refer to general labour market conditions in the SIA study area and regional economic catchment area.</p> <p>In regards to the proposed solution, ARTC has recently updated the EIS economic modelling to reflect current labour market conditions. If labour market conditions at the national and state level remain in the recent range, the Project's construction works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. However, the economic assessment (Appendix Y: Economic Impact Assessment) indicates in Section 5.2, that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment.</p>	<p>Chapter 18: Economics Section 18.4 Section 18.6 Section 18.8 Appendix Y: Economic Impact Assessment Section 5.2</p>
082b	82b.0005	State Agency	Economics	Workforce and employment	Labour force subsection, 16.6.1.4 p.16.10 and 16.11, Tables 16.3 and 16.4: Various labour force characteristics are presented for the March quarter 2019 and December 2019. However, the youth labour force data and all participation rates presented in these Tables are for the 2016 ABS Census of Population and Housing. Generally, when conducting an analysis of labour market conditions, it is more appropriate to consider indicators at a consistent point in time to avoid distortion or misrepresentation of facts.	The provision of such common use infrastructure could substantially increase the catalytic impact of the Project. Similarly, any other assistance the Project may provide to proponents of Projects connecting into Inland Rail would strengthen the case for Project benefits.	<p>ARTC has recently updated the EIS economic modelling to reflect current labour market conditions in the revised draft EIS. ARTC has updated all labour force characteristics in Chapter 17: Social of the revised draft EIS to reflect the following data sets:</p> <ul style="list-style-type: none"> ▶ National Skills Commission 2021, Small Area Labour Markets (SALM), LGA data tables, September quarter 2021 ▶ ABS 2022, Labour Force, Australia, Detailed: Table 16b. Labour force status by labour market region (ASGS) and sex, annual averages of the previous 12 months ▶ QGSO 2021, Population estimates: Regions, Age and sex indicators, LGA and SA2, 30 June 2020p ▶ ABS 2021, 2021 Census - Counting Persons, Place of Usual Residence (MB), LGA & SA4 (UR) by AGE5P - Age in Five Year Groups by LGA & SA (UR) by LFSP Labour Force Status (used for youth labour force calculations) <p>These datasets represented the most recent publicly available data metrics for labour force in Queensland at the time of preparation of the EIS.</p> <p>There are no intermodal hubs which form part of the revised draft EIS. All assumptions relating to demand modelling, including the connection to intermodal terminals, are considered in the Inland Rail Programme Business Case (2015). The revised draft EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals) or Project options is outside the scope of this EIS. It is noted the location of future intermodal terminals will have a material impact on the way benefits of Inland Rail are realised.</p> <p>For further information on possibilities for investment along the rail line, refer to Australia's report 'Inland Rail Regional Opportunities' (March 2020). This report goes beyond the 2015 Business Case to look at:</p> <ul style="list-style-type: none"> ▶ Long-term potential for growth in investment, employment and economic value ▶ Supply chain efficiencies and value chain growth ▶ Specific opportunities to invest alongside Inland Rail, what those investments might look like and growth forecasts for different regions ▶ International case studies and the way business hubs form around transport ▶ Some of the challenges and enablers for investment. <p>The report can be found here: inlandrail.gov.au/understanding-inland-rail/publications-and-reports/inland-rail-regional-opportunities-ey-australia.</p> <p>In addition, the Australian Government has jointly funded a business case to consider the development of an intermodal terminal to support Inland Rail in Queensland. See link: investment.infrastructure.gov.au/Projects/ProjectDetails.aspx?Project_id=111245-20QLD-MRL.</p>	<p>Chapter 17: Social Chapter 18: Economics Section 18.4 Section 18.8</p>
082b	82b.0006	State Agency	Economics	Workforce and employment	Industry by employment subsection, 16.6.2.1, p. 16.12 and 16.13: This subsection, including Table 16.4, comprises of data and associated discussion as that contained in Subsection 16.6.1.1. To avoid unnecessary duplication, it is recommended that these subsections are merged.	This would seem to be a missed opportunity of providing some actual legacy benefit from the Project, especially in the areas with significant impact and little obvious benefit.	<p>ARTC notes the information contained in Chapter 18: Economics Section 18.4, represents 'employment by industry', or the industries which the working residents of the study area are employed in. Subsection 18.4 represents 'industry by employment', or the industries of employment which make up the study area. The two statistics are not mutually exclusive.</p> <p>As detailed in the Social Impact Assessment (Chapter 17: Social), there is the potential for the Project to provide long term legacy benefits to local communities from Project investments which remain after Inland Rail is constructed and operational. The legacy impacts have been identified through local consultation undertaken by ARTC. Legacy benefits include:</p> <ul style="list-style-type: none"> ▶ local skills and business capacity ▶ road safety ▶ economic development ▶ community Projects ▶ community values monitoring and planning resource ▶ digital connectivity. <p>As a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment. The full suite of potential benefits associated with the Inland Rail Program can only be realised once this Project and the 11 other Inland Rail Projects are complete and operational. The EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams; providing competitive freight transport and supporting regional and local business; and are summarised in Section 5.2 of the Executive Summary (pages 6-7). The revised draft EIS also summarises the broader program benefits identified in the 2015 Investment Case in Section 5.1 of the Executive Summary (page 5-6). Some regional and local legacy benefits include:</p> <ul style="list-style-type: none"> ▶ Opportunities to encourage, develop and grow indigenous, local and regional businesses through the supply of resources and materials for construction and operation ▶ The potential to stimulate business and industry development at the Toowoomba Enterprise Hub at Wellcamp by providing efficient transport access to intrastate and interstate markets and acting as a catalyst for further private sector investment ▶ The creation of a more direct rail freight corridor for freight operators. 	<p>Chapter 17: Social Chapter 18: Economics Section 18.4 Section 18.4 Section 18.5 Section 18.11</p>
082b	82b.0007	State Agency	Economics	Workforce and employment	To derive the freight benefits of the Project, future freight demand must be calculated. In doing so, it is assumed that all future contestable freight is carried by rail (this is consistent with the assumption contained in the Inland Rail Program Business Case). This results in a shift of the total freight task from road to rail. As this assumption is open to conjecture, EA suggest that sensitivity testing is performed on changes to this assumption.	Nil.	<p>ARTC notes that all assumptions relating to demand modelling are considered in the Inland Rail Programme Business Case (2015). As such the revised draft EIS reflects the information contained in the Business Case and does not include any new assumptions.</p> <p>Sensitivity testing was undertaken in the Inland Rail Programme Business Case (2015).</p>	<p>Chapter 18: Economics Section 18.3 Appendix Y: Economic Impact Assessment Section 5.3</p>
082b	82b.0008	State Agency	Economics		Subsection 16.9.4, p 16.20: In reporting the results of the full CBA conducted for the Inland Rail Program business case, the benefit cost ratio (BCR) and net present value (NPV) are highlighted at the 4% discount rate rather than at the usually highlighted 7% discount rate. As such, EA suggest that the BCR and NPV results at the 7% discount rate are highlighted.	When conducting an analysis of labour market conditions, it is more appropriate to consider indicators at a consistent point in time to avoid distortion or misrepresentation of facts.	<p>The results have been presented at a 4% discount rate consistent with the Inland Rail Programme Business Case (2015).</p> <p>The 2015 Business Case was to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail Project. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution. The financial (investment) decision has been made to proceed with the Project as such the discount rate is not to be revised for this point in time decision.</p>	<p>Chapter 18: Economics Section 18.7 Appendix Y: Economic Impact Assessment Section 5.3</p>

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
082b	82b.0009	State Agency	Economics		<p>Economic impacts estimated with a CGE model are generally very sensitive to the assumptions used. The following information would be required to fully validate the economic impacts of the CGE modelling conducted for this Project</p> <ul style="list-style-type: none"> the choice of model closure or economic environment used to simulate the impacts of the B2G Project; details of the model database (i.e., the CGE core drawn from the base year input-output tables); input data used to derive shocks to the model (e.g. to investment, output etc.) that represent the direct impacts of the Project and to derive any changes to model parameters; Project specific adjustments such as changes to model theory or equations that deal with the complexity of the Project; a full set of modelling results – represented as percentage deviations from baseline for all of the key variables. At present, only specific results are shown for the Darling Downs – Maranoa regional economy; and access to the model files to be able to replicate and test the assumptions used to set up the simulation. <p>Without this information it is only possible to make some general observations in respect of the CGE modelling and estimated regional economic impacts, as follows:</p> <ul style="list-style-type: none"> A significant limitation of the regional economic impact assessment results from modelling the links of the Inland Rail Program separately only enables construction phase impacts to be considered. A further limitation results from the use of a comparative static version of the CGE model used for the calculation of economic impacts. This type of CGE model measures impacts relative to a snapshot of the economy that does not include the capital expenditure (capex) associated with the B2G Project construction phase. The use of a dynamic CGE model would be more appropriate, however, as this type of model measures impacts on an annual basis relative to a baseline or business as usual Projection of the economy. This enables the adjustment path of the economy to the shocks associated with the B2G Project to be traced. As there is likely to be overlap in the timing of the construction phases of Projects comprising of the Inland Rail Program in adjacent regions, modelling each link in isolation may lead to an underestimation of supply side constraints, particularly those on labour. As such, two scenarios were modelled by KPMG in which assumptions regarding the labour market differ. In the first scenario, the availability of skilled workers in the region is such that there is no pressure on real wages to increase, resulting in a "slack" labour market. In the second scenario, skilled workers must be sourced via an increase in real wages, resulting in a "tight" labour market. The choice of assumption regarding the labour market has a significant bearing on the magnitude of Project impacts, as household incomes and consumption increase to a much greater degree under the slack labour market scenario due to a much greater increase in employment in Darling Downs - Maranoa. It is stated in the report that current labour market conditions in the region are consistent with the slack labour market assumption. However, the influence of supply side constraints resulting from the overlap in timing of the construction of other Inland Rail links in adjacent regions is ignored in this argument. Further, the likely significant future demand for skilled construction workers in Darling Downs – Maranoa and surrounding regions resulting from a range of factors (such as increased numbers of major Projects and continuing population growth) is also not raised. As such, EA are of the view that the tight labour market assumption is more consistent with these factors. The use of a dynamic CGE model would alleviate the requirement for differing assumptions for the labour market at the regional level, as the theory underpinning the dynamic model enables more sophisticated labour market adjustment mechanisms. 	Merge mentioned subsections.	<p>ARTC's modelling is purpose-specific and has been done in the context of a process where a separate EIS is being conducted for each segment of the Inland Rail Project. The relevant limitations of the modelling for this type of analysis (separate EISs) are set out in each report.</p> <p>ARTC has recently updated the EIS economic modelling to reflect current labour market conditions. If labour market conditions at the national and state level remain in the recent range, the Project's construction works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. However, Appendix Y: Economic Impact Assessment indicates in Section 6.4 that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment.</p>	Chapter 18: Economics Section 18.8 Appendix Y: Economic Impact Assessment Section 6.4
082b	82b.0010	State Agency	Economics	Cumulative impacts	The cumulative economic impacts of the five sections of the Inland Rail program that fall in Queensland are also quantified using the KPMG-SD CGE model. As such, most of the limitations discussed with regard to modelling the regional impacts of the B2G Project also apply for the cumulative impact assessment.	Nil.	ARTC has recently updated the revised draft revised EIS cumulative economic modelling which undertakes a quantitative assessment of the cumulative macroeconomic impact of the Inland Rail Program on the economy, resulting from the construction of adjacent sections of the Inland Rail Program. When the modelling for the Economic Impact Assessment was undertaken, there were five sections of the Inland Rail Program that fall in Queensland, including the Border to Gowrie, Gowrie to Helidon, Helidon to Calvert, Calvert to Kagaru and Kagaru to Acacia Ridge and Bromelton. In addition to this, the assessment also includes the CAPEX programs of two Inland Rail sections in New South Wales that have an overlapping timeline with the construction of Project – Narrabri to North Star and North Star to Border. The limitations identified in the Project's economic impact assessment for the modelling apply in this case. Since then, the Kagaru to Acacia Ridge Project has been removed from the Inland Rail Program in Queensland, post the release of the Inland Rail Independent Review (2022).	Chapter 18: Economics Section 18.10
082b	82b.0011	State Agency	Economics	Cumulative impacts	It is worth noting that, due to some crowding out effect in the market for construction industry workers during the construction phases of these Projects, there is a small negative impact on overall employment in the regions outside of the those directly impacted by these Projects (i.e. the Remainder of Queensland and Remainder of Australia).	Nil.	ARTC has recently updated the revised draft EIS economic modelling to reflect current labour market conditions. It is estimated that over the construction works stage an additional 332 direct and indirect jobs will be generated on average each year for Darling Downs – Maranoa and 107 jobs for the rest of Queensland. The displacement of some economic activity in other Australian states is expected to result in total employment being lower than in the baseline by 93 jobs.	
082c	82c.0012	State Agency	Surface Water	construction water supply	Issue: water usage (construction and operation) The draft EIS estimates that the following water demands will occur during the Project: There does not seem to be an allowance for water during the establishment of vegetation planted as part of the landscaping design just a statement that these elements will be self-sustaining once established and will not require watering. Post construction whilst there is an acknowledgement that water may be required to support local maintenance activities such as high-pressure cleaning of culverts but the volumes required will be dependent on the specific activities and frequency of undertaking, and therefore cannot be quantified at this stage of the Project. Water demand is already oversubscribed in the Project area with emergency water supply measures only recently ceasing in Stanthorpe. While there was some reference to hierarchy of preferred water sources in the Agency briefing, I could not find that in the EIS documentation, nor could I find anything firmly undertaken to what extent the hierarchy would be followed.	Water security is a constant topic within the region, perhaps the application of a legacy lens could be used to support infrastructure that would not only support the Project construction need but provide longer term benefit to the impacted area.	Discussion regarding construction water in Section 5.6.24 of Chapter 5: Project description has been substantially revised since release of the draft EIS. This includes the water requirements for revegetation. Detailed discussion of ARTCs approach to construction water are outlined in Appendix B5: Construction Water Requirements Report.	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements Report
082c	82c.0013	State Agency	Groundwater		Investment attraction opportunities are already being limited by the lack of available water and this Project, and the juggernaut of expectation of completion timeframes, that will come once construction commences would seem to provide limited protection for existing and potential water users or to make allowances for climatic conditions or increased water demands.	Nil.	<p>As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. Currently the hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users. Further, the use of groundwater for construction water is not a preferred water source for the Project. The findings of the construction water options assessment are provided in Section 5.6.24, Chapter 5: Project Description of the revised draft EIS. Detailed discussion of ARTC's approach to construction water is outlined in Appendix B5: Construction Water Requirements Report.</p> <p>As the alluvial and MRV aquifers within the impact assessment area are currently near or overallocated, it is unlikely that a temporary water permit would be issued for the additional take of water from these units.</p> <p>In the instance a temporary water permit is warranted during construction, the licenced extraction volume would be within the allowable extraction limits for the relevant Water Plan. Therefore, the Project is not expected to impact on, or alter, the identified relevant Water Plans or other plans under the Water Act outside of their designated use and objectives.</p> <p>The use of existing sustainable groundwater allocated entitlements to supplement the construction demand for the Project may be considered if private owners of registered bores have capacity under their water entitlement that they wish to sell to ARTC or the Contractor under private agreement. Therefore, the volumes extracted would be within the existing licensing limits and the extent of drawdown experienced would be localised and consistent with that which is currently permissible for each licenced bore.</p> <p>Domestic needs will be prioritised above construction water supply and existing sustainable allocated water entitlements will be sourced where possible. The buying or sharing of groundwater from existing water licence/ entitlement/ permit is an option to be considered in the instance bore water is selected as a preferred source of construction water.</p>	Chapter 5: Project Description Section 5.6.24 Appendix B5: Construction Water Requirements Report

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082c	82c.0014	State Agency	Groundwater		The capacity for the increased demand for treated water would also need to be a matter for consultation with the TRC or alternate provider.	Nil.	As part of ARTCs construction water planning process, construction water procurement studies have been undertaken and further investigation is ongoing. Currently the hierarchy of water supply source preferences prioritises non-potable sources to minimise impacts to communities and water users (Table 15.20 of Chapter 15: Groundwater). Further, the use of groundwater for construction water is not a preferred water source for the Project. If groundwater is to be sourced for construction water, it would be secured through private agreement through trading or purchasing of existing allocated entitlements, and the licenced capacity of existing bores will not be exceeded as described in Table 15-17 and 15-20. Detailed discussion of ARTCs approach to construction water is outlined in Appendix B5: Construction Water Requirements Report. If the use of TRC bores is to be considered for construction water supply, the appropriate approval process will be complied with and monitoring will be conducted as per standard processes (Section 15.7 and Table 15-20 of Chapter 15: Groundwater). Government bodies and local stakeholder have been consulted by ARTC regarding Water consultation as outlined in Table E-42 (Section 5.4) of Appendix E: Consultation Report. Following Project approval, ARTC is committed to upholding the engagement and consultation commitments, as the Project transitions through to construction. ARTC's future engagement responsibility during detailed design and construction are outlined in Section 7.2, Table E-72 of Appendix E: Consultation Report. Ongoing consultation with DRDMW and potentially impacted landowners regarding groundwater resources. Additionally, the commitment to a landowner bore make-good process is outlined in Section 15.7 of Chapter 15: Groundwater.	Chapter 15: Groundwater Section 15.7 Table 15-17 Table 15-20 Appendix B5: Construction Water Requirements Report Appendix E: Consultation Report Section 5.4 Section 7.2 Table E-42 Table E-72
082c	82c.0015	State Agency	Groundwater		Ongoing, the need to maintain the culverts would seem vital to any flood management strategy and there is potentially a water demand for this task.	Nil.	Appendix S: Surface Water Table 7.1 outlines the requirements for ARTC to perform maintenance works and activities to maintain features such as bridges, culverts and other drainage infrastructure (detailed in Section 1.4) during the operation of the Project. This is also outlined in Chapter 5: Project Description Section 5.8.4. Appendix S: Surface Water Quality, Table 7.1 states that drainage structures will be inspected to assess physical condition, performance and structural integrity, with corrective measures implemented, as required. Maintenance of surface and subsurface drains will be required to ensure continued effectiveness and to minimise risk of impact to surrounding and downstream environments and structures.	Appendix S: Surface Water Quality Section 1.4 Table 7.1 Chapter 5: Project Description Section 5.8.4
082c	82c.0016	State Agency	Stakeholder Engagement		Issue: Consultation is dated, and a level of fatigue has developed due to lack of closure. The Project has not been widely consulted locally since 2019. There is a reported level of fatigue amongst the business community we engage with from what is felt to be a one-way conversation.	Consultation should be a two-way process. The process for receiving and resolving concerns raised by stakeholders about negative impacts should be detailed transparently and publicly so that stakeholders know how their issues will be considered and adjudicated. This would include the principles used to determine how ARTC acts to reduce impacts or compensate those affected. Involvement of an independent mediator would help alleviate concerns stakeholders might have about how fairly negotiations will be conducted. With construction of Projects underway in other states it would be concerning if ARTC did not already have clearly defined processes that could be referenced.	As detailed in Chapter 6: Stakeholder Engagement and Appendix E: Consultation Report, ARTC has undertaken broad engagement with the community during the development of the revised draft EIS using a variety of communication methods. Appendix E: Consultation Report, Section 2.5 outlines ARTC's stakeholder feedback process, including mechanisms for responding to stakeholder concerns and complaints. Local councils have also been engaged in how ARTC manages complaints, as detailed in Appendix E: Consultation Report, Section 4.3. In some instances, stakeholder feedback has resulted in reference design changes or mitigation measures, and these examples are outlined in Appendix E: Consultation Report, Section 4.1. An independent Community Relations Monitor will be appointed to attend meetings between ARTC and directly affected stakeholders on construction issues and potential mitigation measures and provide support to stakeholders and communities that are facing change due to the Project, as well as other relevant tasks.	Appendix E: Consultation Report
082c	82c.0017	State Agency	Stakeholder Engagement		Concerns are repeatedly raised without a sense of being heard or receiving a response.	Nil.	ARTC's response to stakeholder concerns and consultation outcomes is detailed in Appendix E: Consultation Report, Section 5. Without specific examples, ARTC is unable to provide a meaningful response to this Section of the submission.	Appendix E: Consultation Report Section 5
082c	82c.0018	State Agency	Stakeholder Engagement		Consultation needs to be more regular and Inland Rail needs to have a mechanism to allay business fears.	Nil.	ARTC will ensure the development and implementation of an Australia Industry Participation Plan focusing on opportunities for involvement by local business in construction and operation of the Project. ARTC will continue to engage with Toowoomba and Surat Basin Enterprise (TSBE), Chambers of Commerce and local business groups/associations throughout reference design and into detailed design. The revised draft EIS outlines the consultation outcomes from engagement with local businesses along the alignment, including grazing and farm businesses, tourism operators and other businesses impacted by the Project. Details can be found in Appendix E: Consultation Report, Section 5.	Appendix E: Consultation Report Section 5
082c	82c.0019	State Agency	Stakeholder Engagement		Significant businesses in the region have advised that they receive acknowledgement of emails, but no actual responses.	Nil.	Details of ARTC's stakeholder feedback process is outlined in Appendix E: Consultation Report, Section 2.5. As noted in Appendix E: Consultation Report, Table E-5, ARTC aims to provide an initial response to all email enquiries within 48 hours. Without specific examples, ARTC is unable to provide a meaningful response to this section of the submission.	Appendix E: Consultation Report Section 2.5
082c	82c.0020	State Agency	Stakeholder Engagement		Key Government department representatives have also reported not having current consultation with the Project.	Nil.	During the development of the draft EIS, ARTC undertook engagement with Government agencies as detailed in Appendix E: Consultation Report, Section 4.2 and Table E-18; however, this engagement was largely placed on hold during 2020 during the Coordinator-General's review of the draft EIS and due to COVID-19. During this period, ARTC has provided regular Project updates via email to the stakeholder database as detailed in the revised draft EIS. ARTC notes that engagement with DSDILGP has been ongoing at an operational level during 2021 and 2022 to inform the development of the revised draft EIS.	Appendix E: Consultation Report Section 4.2 Table E-18
082c	82c.0021	State Agency	Economics		Issue: failure to quantified economic impact on the current intensive livestock operations within the Project footprint (3 cattle feedlots, 1 piggy and 1 poultry farm) or the current intensive livestock operations within proximity to the Project footprint (3 Cattle feedlots and 1 Piggy). As detailed in Chapter 7 : Land Use and Tenure, potential land severances may cause a disruption in farm operations through impacts to essential farming infrastructure, services or access routes. The specific impact on the economic viability of farming operations as a result of this potential disruption to access and infrastructure is not quantified in this assessment, and the extent of these impacts will be confirmed during detailed design. ARTC will work with individual landowners to develop suitable solutions based on individual farm management practices. "While identified as a potentially impacted properties, there would seem to be no effort to measure the impact of both the construction and operational stages, not only to the individually identified 'impacted property', but to the communities themselves due to the linkages of employment and as drivers of the local economy. For example, one impacted business is a substantial vertically integrated poultry operation, that is a significant driver for the economy of Millmerran and of the wider Darling Downs. It would be considered within the top 20 employers and businesses within the region and contributes significantly to the economy via grain and transport supply chain requirements. The change from what is currently a disused rail line to the proposed 26 trains per 24-hour period traversing at speed within 100 m of the infrastructure that houses their poultry and processing operations represents a significant impact to the business viability, none of this quantifiable impact would seem to have been captured.	That an effort be made to quantify the value of the impact, at a minimum the 5 properties identified within the Project footprint and to the wider community in which they support.	An assessment of the economic impacts (EIA) per lot and commodity is not in the scope of the Environmental Impact Statement (EIS) assessment process. The requirements for EIA is outlined in Section 5.1 and 11.141 of the Project's final Terms of Reference (ToR). The economic assessment undertaken seeks to identify potential economic benefits and impacts on affected local and regional communities and businesses and has been drawn from local community consultation and industry engagement, public available information, the outputs from the Social Impact Assessment and Land Use and Tenure Assessment. These outcomes have been summarised in the revised draft EIS. In response to public notification of the draft EIS, ARTC has refined the Project alignment which has changed the potential impacts for a number of agricultural enterprises including cattle feedlots, piggeries and poultry farms. ARTC notes the advantages with the proposed updated design and the positive outcomes for the local community being: <ul style="list-style-type: none"> Removal of two active level crossings, increasing safety benefits for the community (for more information refer to Section 20.5 and 20.6 in Chapter 20: Traffic, Transport and Access). This is particularly important for: <ul style="list-style-type: none"> Community members travelling to the Millmerran Waste Management Facility Workers travelling to the Millmerran Power Station, the piggy on Lindenmayer Road and landowners travelling within their community (home and local townships). Reducing the potential impacts on transport requirements for logistical operations required for the current and future farming operations. Rail alignment traverses less area impacted by the 1% AEP Condamine Floodplain event (for more information please refer to Section 14.7, Section 14.8 and Section 14.9 of Chapter 14: Flooding and Geomorphology of the revised draft EIS) The new alignment indicates no changes to 1% AEP Condamine Floodplain impact objectives (i.e. afflux, velocities, inundation, and directional flows) on properties housing infrastructure for major regional employer's business infrastructure. Reduces the adverse economic and social impacts by: <ul style="list-style-type: none"> Creating greater separation between a major Millmerran regional employer's main business infrastructure, reducing potential impacts or risks associated with Inland Rail's operational noise, vibration, light emissions, and potential biosecurity risks. For more information refer to Chapter 17: Social and Chapter 16: Noise and Vibration of the revised draft EIS. Avoids direct impacts to future planned infrastructure. The access road for the piggy infrastructure (Lindenmayer Road) no longer requires a level crossing, eliminating any direct impacts to associated traffic for future operations. For more information refer to Chapter 18: Economics of the revised draft EIS. The revised Appendix Y: Economic Impact Assessment (EIA) in the revised draft EIS, included the calculation of potential loss for rural communities. Appendix Y: Economic Impact Assessment, outlines that overall, the permanent disturbance footprint will traverse 0.07 per cent of the impact assessment area's productive agricultural land. This proportion can be used to estimate, at a high level, the potential loss of agricultural production resulting from the Project. In 2020-21, the gross value of agricultural production in Goondiwindi and Toowoomba LGAs was \$1.62 billion. Accordingly, it is estimated that the Project could result in a loss of \$1.13 million (value foregone) in gross agricultural production per year. The alignment changes, such as the Millmerran Alternative Alignment, now avoid or minimise potential impacts to DA Hall and Co infrastructure and their piggy, poultry and egg farm operations, which are large local employers. In addition, the alignment avoids direct impacts to other intensive animal production operations such as feedlots. ARTC actively consulted with the owners of these operations to refine the Project alignment to minimise impacts on the feedlots' infrastructure and operations. As a result, impacts on employment opportunities associated with these businesses are expected to be negligible. As outlined in the mitigation measures, ARTC will continue to work with impacted landowners and businesses regarding this change from the draft EIS and will continue to consult with key stakeholders during the detailed design stage.	Chapter 14: Flooding and Geomorphology Section 14.7 Section 14.8 Section 14.9 Chapter 16: Noise and Vibration Chapter 17: Social Chapter 18: Economics Section 18.3 Section 18.9 Chapter 20: Traffic, Transport and Access Section 20.5 Section 20.6 Appendix Y: Economic Impact Assessment Section 5.5 Section 6
082c	82c.0022	State Agency	Economics		Not quantifying this negative impact would seem to provide a skewed presentation of the economic impacts of the Project, particularly to the community of Millmerran and of the wider Darling Downs.	Nil.	The 'negative impact not quantified' has been assumed to be the Project costs. Due to the nature of the incremental assessment approach adopted for this revised draft EIS, a Project-specific Cost Benefit Analysis (CBA) has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with the Qld Government, costs have not been included in the Appendix Y: Economic Impact Assessment. Costs were considered in the Investment Case (Inland Rail Programme Business Case, 2015), which was developed to inform the Commonwealth's decision on whether or not to invest in the progression of the Inland Rail Project. It evaluated the benefit, cost and risk of alternative options and provided an evidence base to inform consideration of the preferred solution.	Chapter 18: Economics Section 18.7 Section 18.5 Appendix Y: Economic Impact Assessment Section 2.2
082c	82c.0023	State Agency	General Project opinion - negative		Issue: Currency of data Cumulative impact Projects timeframes etc	A more up to date consideration of the impact given significant changes in both the broader economic environment following COVID 19 and the construction methodology/ procurement structure and timeframe.	Additional assessments of the potential cumulative impacts of the Project have been conducted since submission of the draft EIS. These assessments have been used to update revised draft EIS Chapter 23: Cumulative Impacts.	Chapter 23: Cumulative Impacts

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
082c	82c.0024	State Agency	Economics		Issue: cost benefit analysis done on Programme wide not Project specific basis and limited analysis on impact post construction. The related Inland Rail Program Business Case (ARTC, 2015) noting positive economic benefits that it includes, without offering comment on the veracity of those general claims or commenting on their relevance to the B2G Project. For Example "Lower prices for consumers as a result of lower inter-capital freight transport costs, which reduces the cost of living for households. " "Enhanced competition between rail and road freight, by providing a credible transport alternative, which will drive further innovation and efficiency" "Potential to promote the expansion and development of freight precincts around Inland Rail terminals as a result of the benefits from co-location and clustering of industries (as a result of reduced transport costs to warehousing, economies of scale and knowledge-sharing opportunities). While there is some specificity around construction impact the impact of the Project post construction would seem to retract to the all of program view. There does not appear to be any context within the EIS around opportunities outside the origination and termination points of the model:24hr model train and therefore the implied benefit may be condensed to only a few locations along the whole of program alignment not within the Project area. There is reference to the establishment of an Inland Rail Academy, which is described as a collection of Projects and partnerships, with the aim to facilitate local employment and procurement opportunities and build Inland Rail's social licence to operate the Inland Rail Program.	It would be good if more Project specific (operational) impacts could be identified and included. Such detail will likely strengthen the case for tangible Project benefits given the substantial scope of the Inland Rail Academy more detail could be provided on how it will achieve its goals.	ARTC acknowledges that as a component of the larger Inland Rail Program, the potential benefits of the Project cannot be separated from those that are attributed to the full Brisbane to Melbourne alignment. The full suite of potential benefits associated with the Inland Rail Program can only be realised once this Project and the 12 other Inland Rail Projects are completed and operational. The EIS considers a range of benefit types which may be a direct result of the Project and which can be quantified or identified as part of the Project, rather than the broader Inland Rail Program. These are captured under two broad benefit streams; providing competitive freight transport and supporting regional and local business; and are summarised in Section 5.2 of the Project EIS, Executive Summary. The revised draft EIS also summarises the broader program benefits identified in the 2015 Investment Case in the Executive Summary. Due to the nature of the incremental assessment approach adopted for this EIS, a Project-specific CBA has not been undertaken as the results will not capture the full impact that is expected to be delivered upon completion of Inland Rail. Therefore, as agreed with Queensland Government costs have not been included in the Appendix Y: Economic Impact Assessment. As detailed in Section 7.4.9 of Appendix X: Social Impact Assessment and in Appendix E: Consultation Report, there is the potential for the Project to provide long term legacy benefits to local communities from Project investments which would remain after Inland Rail is constructed and operational. The legacy impacts have been identified through local consultation undertaken by ARTC. Legacy benefits include: <ul style="list-style-type: none">local skills and business capacityroad safetyeconomic developmentcommunity projectscommunity values monitoring and planning resourcedigital connectivity More specifically, the Project's provision of training and employment opportunities will build the skills base within the study area, enabling ongoing opportunities for local workers in major Projects, and providing a greater skills base for local businesses. The Inland Rail Skills Academy is central to this, supporting skills and capability development for both construction and operation. In regard to opportunities outside of the origination and termination points of the model: All assumptions relating to demand modelling, including the connection to intermodal terminals or other supporting freight infrastructure, are considered in the Inland Rail Program Business Case (2015). The EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals or supporting freight infrastructure) or Project options is outside the scope of this EIS. Benefits arising from Projects such as intermodals may bring additional local benefit, however this is not captured under the scope of the Project. Due to the nature of the Project, the operational economic impacts of the Project will only be fully realised once all components of Inland Rail are completed. Assessing each link of the Inland Rail Program individually and in isolation of the whole Program will not capture all the benefits expected to be generated upon completion of the entire Melbourne to Brisbane connection.	Chapter 18: Economics Section 18.7 Section 18.11 Appendix E: Consultation Report Section 7.4 Appendix X: Social Section 7.4.9
082c	82c.0025	State Agency	Stakeholder Engagement		Issue: Access to the line and intermodal points within the Project area. "Continued consulting to seek feedback from the planned operators of trains. This includes asking about train length, frequency, what will be transported, how trains will cope with winds, potential spur lines and how emergencies will be dealt with. The community and business operators are interested in opportunities to transport grain and other goods, as well as the potential for local employment for maintenance and operations and potential sidings and planned future intermodal developments. ARTC response "ARTC recruited a Business Development Manager based in Toowoomba to identify potential opportunities for the community and potential business operators who are interested in potentially transporting grains and other goods. Information about the service offering including length and frequency of trains was publicly available and promoted. "	It would be good if more Project specific (operational) impacts could be identified and included. Such as determination and allowances for a set number of intermodal access points to be developed. Such detail will likely strengthen the case for tangible Project benefits.	There is no predetermined location or number of sidings for the Project and ARTC does not develop sidings. The development of sidings is driven by the market. Private enterprise determines where it is viable to locate and operate a siding or terminal. Additionally, the Federal and State government are jointly undertaking a business case into intermodal terminals in south-east Queensland. Details can be found on the Australian Government website at investment.infrastructure.gov.au/Projects/111245-20QLD-mrl . Potential opportunities for the community and business operators who are interested in potentially transporting agricultural freight and other goods have been and will continue to be identified. Information about the service offering including length and frequency of trains was publicly available and promoted.	N/A
082c	82c.0026	State Agency	Social Impact Assessment	Workforce and employment	Issue: Local Content and Indigenous and local participation. Project Employment – ARTC Commitment ... "Minimum local employment targets will be negotiated and agreed between ARTC and the Principal Contractor "Local Business and Industry Participation ... "Implementation of ARTC's Sustainable Procurement Policy" "Indigenous participation and local participation are included as key elements of construction tender assessment. "Both local content and local employment opportunities have been consistent themes throughout consultation undertaken by ARTC. However, at this point no specific targets have been set by ARTC, instead leaving this to be negotiated with the Principal Contractor. There seems to be a softening of language, in Appendix Z – Proponent Commitments there is a line "Minimum local employment targets will be a requirement in tender documentation" I am unclear if that is ARTC tender documentation but it is changed to "Minimum local employment targets will be negotiated and agreed between ARTC and the Principal Contractor "In Chapter 16. There is also no reference to the Southern Queensland Correctional Centre facility being constructed at Gatton and the 500+ staff that will be needed operationally once complete. Additionally as some significant program wide contracts have already been awarded (steel tracks and sleepers) and some future work packages are known to have limited potential capability in Australia (comms and signalling etc), let alone rural Queensland, the need to direct a large percentage of the remaining Project spend to the impacted areas and communities is vital.	Details on how the Project will practically go about ensuring opportunities to create economic benefits are realised would strengthen the case for Project benefits. For example, there is an undertaking to "... build businesses' capacity to participate in the Project's supply chain through business development, mentoring and pre-qualification Projects. " This could be as little as a few advertisements, newsletters and/or video clips or it could be extensive direct assistance, including investment, in businesses. The clear establishment of targets and or further information on how these elements will be weighted for consideration in the tender process would bring some clarity and confidence to this widely held area of interest and one of the more tangible benefit areas identified. It would also be important to understand what value of the budget for B2G remains uncommitted in arrangements external to the Project area.	As noted in Appendix X: Social Impact Assessment, Section 7.2.2, The Project will underpin its planning with the minimum participation targets set by related Commonwealth and Queensland policy. The Project will drive outcomes toward aspirational or incentivised targets with contractors to exceed these minimum benchmarks. The Project's contractual negotiations will remain commercial in confidence. Where policy benchmarks do not exist, minimum targets have been set with consideration for baseline labour and supply chain conditions, likely cumulative demand and competition for roles or supply at the time of Project construction, and with respect for input from related key stakeholder consultation. The Project is committed to a minimum local employment target of 15% (i.e. employment of residents of the SIA study area), which ensures that Project employment targets are enabling local employment choice, while managing the potential for regulated Project employment targets to accelerate or exacerbate local labour draw, which is a serious concern raised by both GRC and TRC. The Project's aspiration is for its Contractors to exceed this employment target should local labour capacity support this, without significant adverse impact to other local industry or supply chains, at the time of Project delivery. During its construction works stage, the Project will also align with the Queensland Government commitment to achieving an 11% female participation target, and aspires to the Department of Employment, Small Business and Training's recently set 15% target for women in frontline construction roles (Queensland Government, 2022). Updated analysis of the likely availability of construction labour from the SIA study area will be required prior to construction, to enable the refinement of local and regional recruitment and training strategies. The Southern Queensland Correctional Centre expansion is being built in Gatton. It was not considered as part of the cumulative Project set in the draft EIS. Construction of the expansion commenced in March 2021, and is expected to be complete in 2023. As such its peak construction period is unlikely to overlap with that of the Project. The Centre is also unlikely to require workers with similar skill-sets as Inland Rail to fill its operational roles. Appendix X: Social Impact Assessment, Section 7.6 has been revised to address this. Appendix X: Social Impact Assessment, Section 8.6.3 has been revised to include further details regarding the business capacity building programs delivered and planned for future Project stages. Appendix X: Social Impact Assessment, Section 8.3.3 and 8.6.3 have been updated to provide examples of and commentary regarding aspirational targets relevant to local and Indigenous procurement and workforce participation.	Appendix X: Social Impact Assessment Section 7.2.2 Section 7.6 Section 8.3.3 Section 8.6.3
082c	82c.0027	State Agency	Economics		Issue: Currency of data and labour market assumption "Since the completion of the economic modelling detailed in this report, there have been changes to the Project and the Project environment. These changes include alterations to the Inland Rail construction programme and the economic shock associated with the 2020 quarter 2 market conditions which are not reflected in the economic analysis or economic impact assessment contained within this report at the request of ARTC".2 Australian Government's Small Area Labour Markets publication, December 2019; ABS, Labour Force Survey, Australia, December 2019 (12-month moving average) – published 28 March 2020; ABS 2016 Census of Population and Housing Participation rate for working age population 15 to 64 years # June 2016". Data from earlier than 2015 used to support the business case and employment and demographic data from 2019 and 2016 is used to describe existing labour market conditions. There have been significant labour market changes since 2019 which could lead to different conclusions in the baseline assessment and impact assessment. The assumption of a slack labour market is particularly concerning. Unemployment levels in the region are low and have been for some years. With acute employment shortages highlighted across businesses broadly within Toowoomba and across the Darling Downs. Notably that agricultural sector has been severely impacted due to international travel restrictions prohibiting the movement and access of foreign labour. This may have further negative impacts upon the rural businesses in these communities who are unable to compete for labour. There has been a better than anticipated recovery post COVID and a positive year in many areas of the agricultural sector for the first time in many years. There would seem to be little consideration made to the information in 15.11.2.1 around the scheduling of Projects and the cumulative impact on labour.	The slack labour market assumption should be reviewed more up to date data should be used to confirm the conclusions are still valid. Changing the modelling to a tight labour market makes a big difference: the employment numbers drop by about two thirds as the price of labour is much higher, for example.	ARTC has recently updated the EIS economic modelling (EIA) to reflect current labour market conditions. If labour market conditions at the national and state level remain in the recent range, the Project's construction works stage will be completed in the context of a relatively tight labour market, especially in the market for skilled labour relevant to the construction sector. However, the economic assessment indicates in Appendix Y: Economic Impact Assessment, Section 4, that there is some slack in the Darling Downs – Maranoa labour markets, which provides opportunities for recruiting, training and re-skilling available workforces in the region to supply a significant portion of the workforce requirements of the Project. The ability for the local economy to supply labour to the Project, depends on the specific location of works along the alignment. At the time of construction, local employment is dependent on a number of factors including labour market conditions, skills availability, and the existence of workforce training and participation programs to support local, Indigenous and youth employment. ARTC has updated all labour force characteristics in Chapter 18: Economics, Section 18.6 of the revised draft EIS to reflect the following data sets: <ul style="list-style-type: none">National Skills Commission 2021, Small Area Labour Markets (SALM), LGA data tables, September quarter 2021ABS 2022, Labour Force, Australia, Detailed: Table 16b. Labour force status by labour market region (ASGS) and sex, annual averages of the previous 12 monthsQGSO 2021, Population estimates: Regions, Age and sex indicators, LGA and SA2, 30 June 2020pABS 2021, 2021 Census - Counting Persons, Place of Usual Residence (MB), LGA & SA4 (UR) by AGE5P - Age in Five Year Groups by LGA & SA (UR) by LFSP Labour Force Status (used for youth labour force calculations) These datasets represented the most recent publicly available data metrics for labour force in Queensland, at the time of preparing the revised EIA.	Chapter 18: Economics Section 18.6 Appendix Y: Economic Impact Assessment Section 4 Section 5.2
082c	82c.0028	State Agency	Economics		Issue: lack of detail or involvement in implied benefit "As part of Inland Rail, the Project has the potential to stimulate business and industry development at the Toowoomba Enterprise Hub in Wellcamp. By providing efficient transport access to intrastate and interstate markets, the Project may act as a catalyst for further private sector investment in this area, particularly for freight and logistic operations. The further development of the Toowoomba enterprise Hub has the potential to unlock greater economic activity in the region, such as through promoting greater international export opportunities via Wellcamp Airport. It is unclear from this if the Project will build, contribute to, or otherwise assist with development of any intermodal facilities in the Toowoomba Enterprise Hub or any other assistant to proponents of Projects connecting to Inland Rail. If, for example, the Project will involve construction of one or more intermodal facilities for use in the construction process, and such facilities could be designed in such a way that they would be useful as commercial facilities and be sold, or otherwise made available to industry after completion of the build.	The provision of such common use infrastructure could substantially increase the catalytic impact of the Project. Similarly, any other assistance the Project may provide to proponents of Projects connecting into Inland Rail would strengthen the case for Project benefits.	There are no intermodal hubs which form part of the revised draft EIS. All assumptions relating to demand modelling, including the connection to intermodal terminals, are considered in the Inland Rail Programme Business Case (2015). The EIS reflects the information contained in the Business Case and does not include any new assumptions. As such considering the development of other infrastructure (such as intermodal terminals) or Project options is outside the scope of this EIS. It is noted the location of intermodal will have a material impact on the way benefits of Inland Rail are realised. Further information on possibilities for investment along the rail line, include: <ul style="list-style-type: none">Long-term potential for growth in investment, employment and economic valueSupply chain efficiencies and value chain growthSpecific opportunities to invest alongside Inland Rail, what those investments might look like and growth forecasts for different regionsInternational case studies and the way business hubs form around transportSome of the challenges and enablers for investment. Delivery of intermodal terminals by third party service providers. The Australian Government has jointly funded a business case to consider the development of an intermodal terminal to support Inland Rail in Queensland. See link: investment.infrastructure.gov.au/Projects/ProjectDetails.aspx?Project_id=111245-20QLD-MRL	Chapter 18: Economics Section 18.5

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
082c	82c.0029	State Agency	Economics		Issue: lack of detail or involvement in implied benefit "Inland Rail is planning telecommunications systems as part of construction requirements and ongoing safe rail operations. ARTC is working with telecommunications carrier network operators to provide services for construction site offices, non-resident workforce accommodation and the railway corridor. While the focus will mainly be for the provision of voice and high speed data services around the rail track vicinity, it is envisaged that the extended wireless telecommunications network coverage and optical fibre systems will add benefit to the local communities (such as businesses) in those areas where previously such services did not exist. "As connectivity in regional areas is the subject of significant focus and investment, detail around the permanency of some of this infrastructure and the intention to construct infrastructure with a legacy benefit in mind may strengthen both the economic and the social benefit presented.	This would seem to be a missed opportunity of providing some actual legacy benefit from the Project, especially in the areas with significant impact and little obvious benefit.	As detailed in Chapter: 17: Social and Appendix: Social Impact Assessment, there is the potential for the Project to provide long term legacy benefits to local communities from Project investments which remain after Inland Rail is constructed and operational. The legacy impacts have been identified through local consultation undertaken by ARTC. Refer to Appendix E: Consultation Report, Project Legacy Engagement. Legacy benefits may include: <ul style="list-style-type: none"> Local skills and business capacity Road safety Economic development Community values monitoring and planning resource Community Projects Digital connectivity. 	Chapter 17: Social Chapter 18: Economics Section 18.11 Appendix E: Consultation Report Section 7.4
083a	83a.0002	State Agency	Social Impact Assessment		QLD Health considers accommodation camps to be sensitive receptors, meaning the same human health and well-being goals/ criteria applied to prescribed sensitive receptors in the EIS should be extended to areas where accommodation camps are located. For this reason, the proposed accommodation camp should be strategically located to minimise health risks.	Nil.	The Department's concern regarding the health of workers is noted. The proposed locations for the Yelarbon accommodation facility is the nearest to the rail corridor at approximately 2 km, whilst the Inglewood facility are located at a greater distance, and the Millmerran facility site is yet to be determined. ARTC will consider whether there is a need for air quality monitoring stations to be provided as part of the accommodation facilities but considers it unlikely that the air quality or noise impacts resulting from the Project would affect environmental conditions within the facilities. Appendix X: Social Impact Assessment, Section 7.3.4 has been revised in this regard.	Appendix X: Social Impact Assessment Section 7.3.4
083a	83a.0003	State Agency	Social Impact Assessment		The following measures should be addressed to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities population group: <ul style="list-style-type: none"> Outline the source and storage of the Potable water in the accommodation camps and subsequent disinfection if required; Ensure medical and first aid services provided in the accommodation camps comply with Health (Drugs and Poisons) Regulation 1996 and that the relevant local health authorities are aware of the camp prior to it being established Consideration should be given to implementing strategies to reduce advise health effects resulting from social isolation; ARTC should regularly monitor Chief Health Office Public Health Directions for latest information on any potential impacts on workforce or propose accommodation arrangements. 	Nil.	As part of the Accommodation Management Plan, the following planning for healthy environmental conditions within the non-resident workforce accommodation facilities will be implemented: <ul style="list-style-type: none"> Provision and storage (and subsequent disinfection if required) of potable water Compliance with the Health (Drugs and Poisons) Regulation 1996 with respect to the provision of medical and first aid services Mitigation of potential noise impacts from the use of generators for power generation Strategies to improve social connectedness for workers and avoid social isolation such as enabling access to nearby towns, internet access and provision of social activities How pests and vermin will be appropriately managed to prevent infestation Monitoring Public Health Directions for the latest information on any potential impacts on the workforce or proposed accommodation arrangements. Appendix X: Social Impact Assessment, Section 8.4.4 has been revised in this regard.	Appendix X: Social Impact Assessment Section 8.4.4
083a	83a.0004	State Agency	Air Quality		Darling Downs Public Health Unit recommends a series of monitoring and mitigation actions to be considered to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities. See proposed solution column.	The following measures should be addressed to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities population group: - Consideration should be given to assess air quality in the accommodation camps and site these accordingly based on predominant wind predictions;	The placement of non-resident workforce accommodation facility will consider nearby air emissions sources such as fuel storage (50-metre separation distance) and construction laydown areas. Further mitigations have been considered for detailed design and construction of the placement of non-resident workforce accommodation facilities, such as concrete batching plants and locomotive emissions, and consideration of the prevailing wind directions as outlined in Table 8.2 of Appendix R: Air Quality Technical Report. The mitigation measures in Chapter 12: Air Quality (Section 12.6.3, Table 12-36) have been updated to include considerations with respect to impacts to non-resident workforce accommodation facilities.	Chapter 12: Air Quality Section 12.6.3 Table 12-36 Appendix R: Air Quality Technical Report Table 8.2
083a	83a.0005	State Agency	Noise and Vibration	Mitigation measures	Darling Downs Public Health Unit recommends series of mitigation and monitoring actions to be considered to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities. See proposed solution column.	The following measures should be addressed to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities population group: Consideration should be given to potential noise impact from the use of the diesel generator for power generation	Noise impacts to the workforce is a matter of workplace health and safety, and is not considered an environmental impact. As such, these noise impacts have not been assessed as part of the revised draft EIS. Temporary workforce accommodation camps would be designed and constructed to meet workplace health and safety legislation. It should be noted however that sensitive receptor impacts relating to the operations of the temporary accommodation camps have been assessed as part of the revised draft EIS (Section 16.6 of Chapter 16: Noise and Vibration and Section 6 of Appendix V: Noise and Vibration Assessment - Construction and Road Traffic). The assessment factors in the use of generators within the temporary workforce accommodation camps. With respect to impacts to the residential sensitive receptors, no exceedance of the CoP Vol 2 noise criteria has been predicted for the Yelarbon and Inglewood accommodation camps.	Chapter 16: Noise and Vibration Section 16.6 Appendix V: Noise and Vibration Assessment - Construction and Road Traffic Section 6
083a	83a.0006	State Agency	Flora and Fauna		Darling Downs Public Health Unit recommends series of mitigation and monitoring actions to be considered to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities. See proposed solution column.	The following measures should be addressed to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities population group: <ul style="list-style-type: none"> Consideration should be given to implementing strategies (including monitoring) on how pests and vermin will be managed to prevent infestation in camps; The Proponent should assess the sites potential (both construction and the camp) to create breeding sites for biting insects and describe strategies (including monitoring) to prevent the spread of mosquito born diseases in the area. 	Approvals and operations of the workforce accommodation facilities will be managed by the contractor, and will be in line with Workplace Health and Safety legislation. Management Plans will be developed for the facilities, and will include appropriate and suitable management measures to ensure the health, safety and well-being of residents. Outline measures are included in Chapter 24: Draft Outline Environmental Management Plan.	Chapter 24: Draft Outline Environmental Management Plan
083a	83a.0007	State Agency	Groundwater	Mitigation measures	Darling Downs Public Health Unit recommends series of mitigation and monitoring actions to be considered to appropriately assess and manage the increased risk to human health in the temporary accommodation facilities. See proposed solution column.	Further information needs to be provided on what mitigation measures will be implemented where current, proposed and future bore water is affected, other than where supply is disrupted through regular flooding or drawdown processes, such as contamination on groundwater.	Consideration of potential for groundwater contamination has been incorporated in a preliminary contamination assessment in Chapter 15: Groundwater (Table 12-17) and supported by Chapter 9: Land Resources (Sections 9.4.5, 9.5.9 and 9.5.10), including a site history study and limited soil and groundwater sampling and analysis. The sites subject to potentially contaminating activities identified as part of the preliminary contamination assessment have been reviewed in the context of potential for groundwater contamination and potential for extraction of groundwater as part of the Project (i.e. groundwater seepage into deep cuts) in that area. Further, analysis of a broad suite of contaminants has been included as part of the baseline groundwater monitoring program. More detailed soil and groundwater investigations will be undertaken in detailed design stage, including the identification of areas with potential for groundwater contamination with a focus on locations of proposed deep cuts with potential to intercept the groundwater table and the findings of the contamination conceptual site model and risk-based approach to site management. Revised draft Appendix X: Social Impact Assessment in Table 8.11, notes that "The Project's non-resident workforce accommodation will be self-sufficient with respect to water management and sewage treatment".	Chapter 9: Land Resources Section 9.4.5 Section 9.5.9 Section 9.5.10 Chapter 15: Groundwater Table 12-17 Appendix X: Social Impact Statement Table 8.11
9	9.0002	Private	Noise and Vibration	Mitigation measures	Noise mitigation plans for Yelarbon School and Scout hall should be fully described prior to acceptance of the draft EIS statement. Appendix T Figure 24 suggests a 4 m high sound barrier of unspecified material with or without associated earthworks like retaining walls and earth mounds. There also appears to be no reason from the picture provided why the wall could not extend another 70 m east and west for further benefit. There is no commitment to a specific acoustic absorbing material, only a listing of potential options. The submitter highlights the lack of commitment to noise and scenic mitigation and consultation with the community about these issue prior to the start of the Project.	Provide data on the wall to be provided. Extend the wall another 70 m east and west for further benefit. Make commitment to specific acoustic absorbing material.	The railway noise assessment has been revised in accordance with Department of Transport and Main Road's DTMR's Interim Guideline (2019), including examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The noise and vibration assessment information, including discussion on noise mitigation, can be found in Section 16 of Appendix W (Railway operations) and Section 16.10 Chapter 16: Noise and Vibration of the revised draft EIS, Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations provides a review of the noise barrier options for the Project. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. Brookstead and Yelarbon State Schools are located within 200 m of the Project footprint and the Southbrook Central State School is located 900 m from the alignment. These schools may be impacted by construction and/or operational noise and construction activities. Consultation with these schools and the Department of Education (DoE) commenced in 2017. Engagement with DoE and the school principals in 2018, 2021 and 2022 has confirmed an approach to audit and identify appropriate mitigation measures specific to each school's requirements. Details of these meetings are outlined in Appendix E: Consultation Report, Section 4.2, Queensland Government engagement. The agreed approach is to work with the schools and DoE during detailed design to confirm appropriate noise mitigation measures based on an audit of each affected schools' site layout, to determine the applicability of in-corridor or at-property noise treatments. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix E: Consultation Report Section 4.2 Appendix W: Noise and Vibration Assessment - Railway Operations Section 17 Section 17.4
9	9.0003	Private	Noise and Vibration	Mitigation measures	For the remaining 17 receptors still not meeting the watered down guidelines (instead of the WHO recommendation for Night noise levels), there is no indication which on-property mitigations will be offered, what the criteria will be for qualifying for them, and whether these further measures will bring levels within the guidelines.	Provide information to the remaining 17 receptors about on-property mitigations, what the criteria will be for qualifying them and whether these further measures will bring levels within the guidelines. This should be done before the draft EIS is accepted, and further required to compensate property owners where these requirements cannot be met.	The revised draft EIS has been updated to address potential impacts from both construction and operational noise and vibration to sensitive receptors along the alignment. The assessment of noise from railway operations is conducted in accordance with the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration (refer to Chapter 16: Noise and Vibration, and Appendix W: Noise and Vibration Assessment - Railway Operations). The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 (enHEALTH 2018). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014. Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland. Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations. Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project, making it premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design. As per the Department of Transport and Main Roads Interim Guideline – Operational Rail Noise and Vibration, where noise criteria is exceeded, reasonable and practicable mitigation options should be implemented at ARTC's expense. ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.	Chapter 16: Noise and Vibration Section 16.10 Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17

Sub No.	Issue No.	Submitter Type	Submission Category - QLD	Sub-Category	Summary of Issue	Submitter Proposed Solution	Response to draft EIS Submissions	References in revised draft EIS
9	9.0005	Private	Noise and Vibration	operational rail noise	Concern that overnight noise will be above the safe threshold at home, which impact children's health and will disrupt their schooling. Studies show even moderately sleep deprived students have a reduced full-scale IQ due to decreased scores in verbal comprehension and memory/attention domains. In severely sleep deprived children these deficits are found across all sub-domains measured. Sleep deprivation has been found to impair attention, working memory, long term memory and decision making.	Commit to specific mitigation measures intended to be deployed prior to the draft EIS being accepted.	<p>The revised draft EIS has been updated to address potential impacts from the operational rail noise and vibration in accordance with Department of Transport and Main Roads - Interim Guideline operational Railway Noise and Vibration. The noise assessment criteria from the Interim Guideline are designed to manage impacts to amenity and annoyance. Noise mitigation shall be provided by ARTC where the Department of Transport and Main Roads criteria are not met, including the potential for at-property treatments.</p> <p>The sleep disturbance assessment has been based on the Queensland Noise and Vibration EIS Information Guide (DES, 2024), which references the Australian Government's Department of Health publication, The Health Effects of Environmental Noise, 2018 ('enHEALTH 2018'). The enHEALTH 2018 publication includes review of international evidence on the influence of environmental noise on sleep, cardiovascular disease and cognitive outcomes. It is based on over 200 research papers, publications and policies from January 1994 to March 2014.</p> <p>Compliance with the enHEALTH threshold does not preclude the potential for sleep disturbance in some individuals. Inland Rail recognise that lower thresholds for sleep disturbance have been proposed in Europe (44dBA Leq,night) (World Health Organization, 2018). The 44 dBA night-time level as an evidence-based threshold is not strongly supported in the enHEALTH guideline as it only accounts for about 3% probability of being highly sleep disturbed based on the research literature reviewed. Comparatively, the 55 dBA threshold has about 10% probability of being highly sleep disturbed. The enHEALTH publication has considered these aspects in developing the 55 dBA threshold for Australian conditions. It is important to note that the night-time threshold of 55 dBA is a lower, and more stringent, noise level criterion than the requirements of the Interim Guideline. Furthermore, the application of a 55 dBA Leq,night noise level criterion is deemed more stringent than any noise management threshold that has been implemented on rail Projects in Queensland.</p> <p>Results of the assessment are discussed in Section 11 of Appendix W: Noise and Vibration Assessment - Railway Operations. The assessment notes that majority of the exceedances are observed to be in towns. These receptors would benefit from any noise barriers being implemented. The review of noise barrier options is discussed in Section 17.4 of Appendix W: Noise and Vibration Assessment - Railway Operations. Outside of these towns and/or barrier locations presented in the assessment, the remaining receptors are observed to be isolated, even if the predicted levels were to be exceeded (by 2-3 dB for a theoretical worst-case scenario). Therefore, mitigation to these receptors would be limited to property treatments, subject to further investigations.</p> <p>Operational noise mitigation measures are recommended in Chapter 16: Noise and Vibration, Section 16.10 and Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17. This includes examples of at-property noise treatments and noise barrier mitigation which includes measures specifically to reduce noise impacts at residential properties. The development and implementation of such measures will be subject to further detailed studies and verification of noise levels during initial operations. There will be engineering, and further acoustic assessment works (including noise modelling) undertaken during the detailed design and construction works stages of the Project. It is premature to present specific property treatments when the railway noise levels may be further refined, and other mitigation solutions developed during detailed design.</p> <p>ARTC is committed to working directly with impacted landowners and the local community to develop a solution that minimises impacts where possible. Further consultation with key stakeholders and the community will continue into the detailed design stage to minimise disruption in the construction works stage and through to operations.</p>	<p>Chapter 16: Noise and Vibration Section 16.10</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 11 Section 17</p>
091a	91a.0009	Private	Project alignment		Summary of original 10-page submission - broadly supportive, but request that attention be given to the proposal for all but 7 km of the 216 km Project to be dual gauge (as opposed to just standard gauge with some conversion of narrow to standard gauge or some other track in South Western Qld), and other issues including curvature, level crossings, emissions and external costs.	Nil.	<p>As described in Section 5.4.2 of Chapter 5: Project Description, the Project comprises dual gauge track to accommodate both standard gauge and narrow-gauge trains. This design enables seamless interoperability between the new Inland Rail infrastructure, the existing QR network, and their respective operators. The primary goal is to meet the operational needs of existing services in Queensland while also facilitating the transportation of freight between Melbourne, Brisbane, and various intermodal hubs.</p> <p>It is important to note that the operation of the QR network and any upgrades or modifications to it fall under the jurisdiction of the Department of Transport and Main Roads, acting as the rail authority. If there are proposed modifications that go beyond the scope of the current Inland Rail Program, such as upgrading from narrow gauge to standard gauge, the appropriate course of action would be to directly submit those proposals to the respective rail authority.</p>	<p>Chapter 5: Project Description Section 5.4.2</p>
98	98.0002	State	Noise and Vibration	Mitigation measures	The preferred treatments for achieving acceptable environmental noise standards for impacted housing in Yelarbon, Brookstead and Pittsworth, including any noise barrier treatments, need to be made available for State Agency review before the commencement of these works and the operation of the rail line.	As the preferred treatments for achieving acceptable environmental noise standards for housing, including any noise barrier treatments, are to be identified in the Project's detailed design phase, this information should be included in any upgraded SIMP and EMP and made available for State Agency review via a condition of any approval granted by the Coordinator-General	<p>Appendix W: Noise and Vibration Assessment - Railway Operations, Section 17.4 discusses noise barrier options for the Project. Noise barrier treatment is recommended as a reasonable and practicable noise mitigation option in the assessment, and ARTC will determine its further implications and viability during the detailed design and construction works stages of the Project.</p> <p>ARTC has now included in the revised draft EIS, some additional artist's impressions showing the potential for mitigation measures to reduce the visual impact and to improve visual amenity where noise walls are proposed within the Border to Gowrie LVIA study area (e.g. in the vicinity of Yelarbon, Brookstead and Pittsworth). Refer to Chapter 10: Landscape and Visual Impact Assessment, Section 10.5.4 Visual impact assessment, and Appendix K: Landscape and Visual Impact Assessment, Section 8.2. The existing Viewpoint 2 (VP02) and associated visualisation in Yelarbon have now been updated to show and describe the potential impact of conceptual noise walls in this location. In addition, a new viewpoint (VP03) and visualisation has been prepared to discuss and represent potential impacts as viewed from the Yelarbon Silo Art viewing area (VP03 and VP04).</p> <p>It must be noted that these are indicative only and that detailed mitigation measures are subject to detailed design and liaison with relevant landowners and managers and to ensure compliance with detailed site constraints (e.g. frangible vegetation zone requirements and sightlines) that cannot be resolved at this stage. ARTC will comply with any conditions of approval relating to consultation with State agencies on noise mitigation.</p>	<p>Chapter 10: Landscape and Visual Impact Assessment Section 10.5.4</p> <p>Appendix K: Landscape and Visual Impact Assessment Section 8.2</p> <p>Appendix W: Noise and Vibration Assessment - Railway Operations Section 17.4</p>